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- Real exam approach
- PYQ & Mock practice set
- Chapter wise calculation Tricks

Useful For

SSC-CGL (Tier-I & II), CHSL(Tier-I & II), CPO, MTS, CDS, GD, Selection Post & other Competitive Exams



Gagan Pratap Sir

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Gagan Pratap Sir

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Preface

The main aim of publishing this book is to spread the knowledge in the easiest way amongst learners. There are manifold purposes of writing this book on the subject. Basically, it caters to the needs of the candidates aspiring for competitive examinations, and for the beginners to understand the intricacies of the subject.

It is observed that the very name of the subject, Mathematics evokes fear in the minds of the students. Through this book an effort has been made to dispel that fear. MCQs at the end of every unit will help the students to make a self-assessment of the knowledge assimilated by going through the Chapters. The answers have been given for MCQs along with explanations.

As a professional it is observed that the books in the market are providing useful information to the students. They provide very useful multiple choice questions with their correct answers. The inquisitive mind of the student is still left high and dry as he is at a loss to know as to why a particular answer and why not otherwise. Through this book, the author has made an effort to provide rationale for the solutions. The book, therefore, meets the expectations of the students as it answers the demand and the quest in their mind.

The book is user-friendly and provides content in a well structured manner. It provides comprehensive and critical study of the various concepts of the subject matter. A word or suggestion from your side may add another feather to the cap of the subject matter of the book. The author looks forward to the comments, suggestions and criticism from the readers. Constructive suggestions and feedback from users would be highly appreciated, gratefully acknowledged and suitably incorporated.

Striving to serve the student community and to impart quality education.

With best wishes

Champion Publication

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01 Always Remember (सदैव याद रखें)

Table

11	12	13	14	15	16	17	18	19
22	24	26	28	30	32	34	36	38
33	36	39	42	45	48	51	54	57
44	48	52	56	60	64	68	72	76
55	60	65	70	75	80	85	90	95
66	72	78	84	90	96	102	108	114
77	84	91	98	105	112	119	126	133
88	96	104	112	120	128	136	144	152
99	108	117	126	135	144	153	162	171
110	120	130	140	150	160	170	180	190

21	22	23	24	25	29	31	37	47
42	44	46	48	50	58	62	74	94
63	66	69	72	75	87	93	111	141
84	88	92	96	100	116	124	148	188
105	110	115	120	125	145	155	185	235
126	132	138	144	150	174	186	222	282
147	154	161	168	175	203	217	259	329
168	176	184	192	200	232	248	296	376
189	198	207	216	225	261	279	333	423
210	220	230	240	250	290	310	370	470

Number	Square	Cube	Number	Square	Cube
2^2	4	8	26^2	676	17576
3^2	9	27	27^2	729	19683
4^2	16	64	28^2	784	21952
5^2	25	125	29^2	841	24389
6^2	36	216	30^2	900	27000
7^2	49	343	31^2	961	29791
8^2	64	512	32^2	1024	32768
9^2	81	729	33^2	1089	35937
10^2	100	1000	34^2	1156	39304
11^2	121	1331	35^2	1225	42875
12^2	144	1728	36^2	1296	46756
13^2	169	2197	37^2	1369	50653
14^2	196	2744	38^2	1444	54872
15^2	225	3375	39^2	1521	59319
16^2	256	4096	40^2	1600	64000
17^2	289	4913	41^2	1681	68921
18^2	324	5832	42^2	1764	74088
19^2	361	6859	43^2	1849	79507
20^2	400	8000	44^2	1936	85184
21^2	441	9261	45^2	2025	91125
22^2	484	10648	46^2	2116	97336
23^2	529	12167	47^2	2209	103823
24^2	576	13824	48^2	2304	110592
25^2	625	15625	49^2	2401	117649
			50^2	2500	125000

Prime Number (अभाज्य संख्या)

Prime Numbers → Only two factors 1 & itself.

अभाज्य संख्याएँ → केवल दो गुणनखंड 1 और स्वयं।

Prime Numbers Between 1 to 100

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97

- **2** → only even prime no. & smallest prime no.
  2 → एकमात्र सम अभाज्य संख्या और सबसे छोटी अभाज्य संख्या
- **3,5,7** → only pair of consecutive odd prime no.
  3,5,7 → क्रमागत विषम अभाज्य संख्या का केवल युग्म।

Prime no.→

1-50 → **15** 50-100 → **10** 1-100 → **25**
1-200 → **46** 1-1000 → **168**

Each prime number can be written in **(6k ± 1)** form except 2 and 3.

2 एवं 3 को छोड़कर, प्रत्येक अभाज्य संख्या को **(6k ± 1)** के रूप में लिखा जा सकता है।

But every **(6k ± 1)** form may not be necessarily prime no.

लेकिन हर (6k ± 1) रूप, आवश्यक रूप से अभाज्य संख्या नहीं हो सकती है।

13 → 6×2+1 (prime/अभाज्य)

25 → 6×4+1 (not prime/भाज्य)

Digits	Smallest Prime	Largest Prime
2-digit	11	97
3-digit	101	997
4-digit	1009	9973
5-digit	10007	99991

Factorial Values

0! = 1	1! = 1	2! = 2
3! = 6	4! = 24	5! = 120
6! = 720	7! = 5040	8! = 40320

Some product to Remember

1. $11 \times 12 = 132$
2. $12 \times 13 = 156$
3. $13 \times 14 = 182$
4. $14 \times 15 = 210$
5. $15 \times 16 = 240$
6. $16 \times 17 = 272$
7. $17 \times 18 = 306$
8. $18 \times 19 = 342$
9. $12 \times 25 = 300$
10. $24 \times 25 = 600$
11. $8 \times 125 = 1000$
12. $37 \times 3 = 111$
13. $37 \times 27 = 999$
14. $7 \times 11 \times 13 = 1001$
15. $12 \times 9 = 18 \times 6 = 36 \times 3 = 27 \times 4 = 108$
16. $12 \times 15 = 20 \times 9 = 45 \times 4 = 36 \times 5 = 180$
17. $18 \times 8 = 16 \times 9 = 12 \times 12 = 36 \times 4 = 24 \times 6 = 144$
18. $12 \times 18 = 24 \times 9 = 6 \times 6 \times 6 = 216$

Sum of natural numbers (प्राकृतिक संख्याओं का योग)

(i) Sum of first n natural numbers/ प्रथम n प्राकृतिक संख्याओं का योग $= \frac{n(n+1)}{2}$

(ii) Sum of first n even natural numbers.
प्रथम n सम प्राकृतिक संख्याओं का योग।
i.e. $2+4+6+...+2n = \mathbf{n(n+1)}$

(iii) Sum of first n odd natural numbers.
प्रथम n विषम प्राकृतिक संख्याओं का योग।
i.e. $1+3+5+...(2n-1) = \mathbf{n^2}$

(iv) Sum of square of first n natural numbers.
प्रथम n प्राकृतिक संख्याओं के वर्ग का योग।

$$\text{i.e. } 1^2+2^2+3^2+\ldots+n^2=\frac{n(n+1)(2n+1)}{6}$$

(v) Sum of cube of first n natural numbers.
प्रथम n प्राकृतिक संख्याओं के घन का योग।

$$\text{i.e. } 1^3+2^3+3^3+\ldots+n^3=\left[\frac{n(n+1)}{2}\right]^2$$

(vi) $$1^4+2^4+3^4+\ldots+n^4=\frac{n(n+1)(6n^3+9n^2+n-1)}{30}$$

(vii) Sum of n terms of series/श्रृंखला के n पदों का योग
$1^2-2^2+3^2-4^2+5^2-6^2+7^2-8^2+\ldots$

Case I When n is odd $=\frac{n(n+1)}{2}$

स्थिति I जब n विषम है $=\frac{n(n+1)}{2}$

Case II When n is even $=\frac{-n(n+1)}{2}$

स्थिति II जब n सम है $=\frac{-n(n+1)}{2}$

Arithmetic Progression

(iii) a, a+d, a+2d, a+3d, ...a+(n–1)d
$T_n = n_{th}$ term = **a+(n–1)d** = Last term for n term AP
$T_n = n_{th}$ term = **a+(n–1)d** = n पद AP का अंतिम पद

Sum of first n terms of AP, is given by
AP के पहले n पदों का योग, द्वारा दिया गया है

$(S_n = \frac{n}{2}[2a + (n-1)d] = \frac{n}{2}[a + l])$

When l = last term/अंतिम पद

Sum /योग $\rightarrow n\frac{(a+l)}{2}$ OR/और $\frac{n}{2}[2a+(n-1)d]$

$T_n = l = a + (n-1)d \rightarrow \frac{l-a}{d} = n - 1$

$\therefore n = \frac{l-a}{d} + 1$

Geometric Progression

(i) n^{th} term of a GP from the end is given by/किसी GP का nवाँ पद अंत से दिया जाता है। $a'_n = \frac{l}{r^{n-1}}$

(ii) Sum of first n terms of a GP is given by
GP के पहले n पदों का योग किसके द्वारा दिया जाता है

$$S_n = \begin{cases} \frac{a(1-r^n)}{1-r}, \text{if/यदि } r<1 \\ \frac{a(r^n-1)}{r-1}, \text{if/यदि } r>1 \\ na, \text{if } r=1 \end{cases}$$

(iii) $S_n = \frac{a-lr}{1-r}$, $r < 1$ or $S_n = \frac{lr-a}{r-1}$, $r > 1$

where, l = last term of the GP.
जहाँ, l = GP का अंतिम पद

(i) If/यदि $|r| < 1$, then/तब $S_\infty = \frac{a}{1-r}$

(ii) If/यदि $|r| \geq 1$, then/तब S_∞ can not be calculated.

(b) Product of n GM's/n GM's का गुणनफल

$G_1 \times G_2 \times G_3 \times .... Gn = G^n$, where $G = \sqrt{ab}$

AM, GM, HM Relation

❖ 1. $AM \times HM = GM^2$ 2. $AM \geq GM$

Ex. Let x and y be two positive real numbers. Then $\left(x+\frac{1}{x}\right)\left(y+\frac{1}{y}\right)$ is greater than or equal to.

(a) 1 (b) 2 (c) 3 (d) 4

Sol. (c) $AM \geq GM$

So, $\frac{x+\frac{1}{x}}{2} \geq \sqrt{x+\frac{1}{x}}$, $x+\frac{1}{x} \geq 2$ ...(i)

Similarly, $\frac{y+\frac{1}{y}}{2} \geq \sqrt{y \times \frac{1}{y}}$, $y+\frac{1}{y} \geq 2$ ...(ii)

Multiply (i) with (ii)

$\left(x+\frac{1}{x}\right)\left(y+\frac{1}{y}\right) \geq 2 \times 2$, $\left(x+\frac{1}{x}\right)\left(y+\frac{1}{y}\right) \geq 4$

Ex. Let a, b, c be positive numbers such that abc = 1 then the minimum value of a + b + c is.

(a) 8 (b) 3 (c) 4 (d) 2

Sol. (b) $AM \geq GM, \Rightarrow \frac{a+b+c}{3} \geq \sqrt[3]{abc} \Rightarrow a + b + c \geq 3$

Ex. Find the harmonic mean, If arithmetic mean is 27 and geometric mean is 9?

(a) $9\sqrt{3}$ (b) 9 (c) $\sqrt{3}$ (d) 3

Sol. (d) $GM^2 = AM \times HM \Rightarrow (9)^2 = 27 \times HM \Rightarrow HM = 3$

Divisibility Rules (विभाज्यता नियम)

❖ 1 is not divisible by any number except 1 but 1 is a universal factor.

1, 1 को छोड़कर किसी भी संख्या से विभाज्य नहीं है, लेकिन 1 एक सार्वत्रिक गुणनखंड है।

Divisibility Rule of 2, 4, 8, 16

➢ **2→** Last digit should be zero or divisible by 2.

2→ अंतिम अंक शून्य या 2 से विभाज्य होना चाहिए।

➢ **4→** Last 2 digit should be divisible by 4.

4→ अंतिम 2 अंक 4 से विभाज्य होना चाहिए।

➢ **8→** Last 3 digit should be divisible by 8.

8→ अंतिम 3 अंक 8 से विभाज्य होना चाहिए।

➢ **16→** Last 4 digits should be divisible by 16

16→ अंतिम 4 अंक 16 से विभाज्य होने चाहिए

Divisibility Rule of 3 and 9

➢ **3→** Sum of digits should be divisible by 3.

3→ अंकों का योग 3 से विभाज्य होना चाहिए।

➢ **9→** Sum of digits should be divisible by 9.

9→ अंकों का योग 9 से विभाज्य होना चाहिए।

Divisibility Rule of 5, 25, 125

- 5 → Last digit should be 0 or 5

  5 → अंतिम अंक 0 या 5 होना चाहिए।

- 25→ Last two digit should be divisible by 25.

  25→ अंतिम दो अंक 25 से विभाज्य होने चाहिए।

- 125→ Last 3 digit should be divisible by 125.

  125→ अंतिम 3 अंक 125 से विभाज्य होने चाहिए।

Divisibility Rule of 6

6 → 2×3 (co-prime factors) / (सह-अभाज्य गुणनखंड)

∴ If a number is divisible by 2 & 3 both, that number will also be divisible by 6

∴ यदि कोई संख्या 2 और 3 दोनों से विभाज्य है, तो वह संख्या 6 से भी विभाज्य होगी

Divisibility Rule of 11

- If the difference between the sum of the digits at odd places and sum of the digits at even places is zero or multiple of 11.

  यदि विषम स्थानों के अंकों के योग और सम स्थानों के अंकों के योग के बीच का अंतर शून्य या 11 का गुणक है।

Add even place digits
Add odd place digits
→ Take diff. → If diff. is 0 or multiple of 11 then no. will be divisible by 11

$\underline{1}6\underline{6}4\underline{5}2 \rightarrow 1+6+5 = 12$

$6+4+2 = 12$ diff. $= 0 \therefore$ div. by 11

$\underline{7}9\underline{4}5\underline{9}3\underline{8} \rightarrow 28-17 = 11$

Divisibility Rule of 12

$12 = 4 \times 3$

❖ If a number is divisible by 4 and 3 both, then that number will also be divisible by 12.

यदि कोई संख्या 4 व 3 दोनों से विभाजित होती है तो वह संख्या 12 से भी विभाजित होगी।

Divisibility Rule of 17

To check divisibility of 17, we apply following method→

17 की विभाज्यता जाँचने के लिए हम निम्नलिखित विधि का प्रयोग करते हैं→

Step-I Multiply the last digit by 5 and subtract it from the remaining number.

अंतिम अंक को 5 से गुणा करें और शेष संख्या से घटाएँ।

Step-II Repeat the process until a small number is obtained.

प्रक्रिया को तब तक दोहराएँ जब तक कि एक छोटी संख्या प्राप्त न हो जाए।

Step-III If the result is divisible by 17, the original number is also divisible by 17.

यदि परिणाम 17 से विभाज्य है, तो मूल संख्या भी 17 से विभाज्य होगी।

$3587 \rightarrow 358 - 7 \times 5 = 358 - 35 \Rightarrow 323$

$323 \rightarrow 32 - 3 \times 5 = 32 - 15 = 17$

3587 will be divisible by 17/3587, 17 से विभाज्य होगा।

Divisibility Rule of 7, 11, 13

Step-I → Make pair of 3 digits from RHS

→ RHS से 3 अंको का युग्म बनाएं

Step-II → Take difference of both pairs

→ दोनों जोड़ों का अंतर ज्ञात करें

Step-III → If difference is divisible by 7, 11, 13, then number will be divisible by 7, 11, 13 respectively./यदि अंतर 7, 11, 13 से विभाज्य है तो संख्या क्रमश: 7, 11, 13 से विभाज्य होगी।

	7 ✓
005922 → 922 – 5 = 917	11 ×
	13 ×
	7 ✓
6489 → 489 – 6 → 483	11 ×
	13 ×
	7 ✓
380247 → 380–247 →133	11 ×
	13 ×

- Any number of the form ABAB is divisible by 101.
  ABAB के रूप की कोई भी संख्या 101 से विभाज्य होती है।
  73×101 = 7373
- Any number of the form ABCABC is divisible by 1001, 7, 11, 13 always.
  ABCABC के रूप की कोई भी संख्या हमेशा 1001, 7, 11, 13 से विभाज्य होती है।

Always Remember

$687 \times 1001 = 687687$

- Any number of the form ABABAB is divisible by 3, 7, 13, 37, 10101.

  ABABAB के रूप की कोई भी संख्या 3, 7, 13, 37, 10101 से विभाज्य है।

$73 \times 10101 = 737373$

- $7 \times 11 \times 13 = 1001$ (Remember)

Circle

Radius (r)	Perimeter ($2\pi r$)	Area (πr^2)
7 × k	**44 × k**	**154 × k^2**
7 cm	44 cm	154 cm^2
14 cm	88 cm	616 cm^2
21 cm	132 cm	1386 cm^2
28 cm	176 cm	2464 cm^2
35 cm	220 cm	3850 cm^2
42 cm	264 cm	5544 cm^2
49 cm	308 cm	7546 cm^2
56 cm	352 cm	9856 cm^2
63 cm	396 cm	12474 cm^2

Percentage (प्रतिशत)

Fraction percentage chart (भिन्न प्रतिशत चार्ट)

Fraction	Percentage	Percentage
1	100%	100%
$\frac{1}{2}$	50%	50%
$\frac{1}{3}$	33.33%	$33\frac{1}{3}\%$
$\frac{1}{4}$	25%	25%
$\frac{1}{5}$	20%	20%
$\frac{1}{6}$	16.66%	$16\frac{2}{3}\%$
$\frac{1}{7}$	14.28%	$14\frac{2}{7}\%$
$\frac{1}{8}$	12.5%	$12\frac{1}{2}\%$
$\frac{1}{9}$	11.11%	$11\frac{1}{9}\%$
$\frac{1}{10}$	10%	10%
$\frac{1}{11}$	9.09%	$9\frac{1}{11}\%$
$\frac{1}{12}$	8.33%	$8\frac{1}{3}\%$

$\frac{1}{13}$	7.69%	$7\frac{9}{13}\%$
$\frac{1}{14}$	7.14%	$7\frac{1}{7}\%$
$\frac{1}{15}$	6.66%	$6\frac{2}{3}\%$
$\frac{1}{16}$	6.25%	$6\frac{1}{4}\%$
$\frac{1}{17}$	5.88%	$5\frac{15}{17}\%$
$\frac{1}{18}$	5.55%	$5\frac{5}{9}\%$
$\frac{1}{19}$	5.26%	$5\frac{5}{19}\%$
$\frac{1}{20}$	5%	5%
$\frac{1}{21}$	4.76%	$4\frac{16}{21}\%$
$\frac{1}{22}$	4.54%	$4\frac{6}{11}\%$
$\frac{1}{23}$	4.34%	$4\frac{8}{23}\%$
$\frac{1}{24}$	4.16%	$4\frac{1}{6}\%$
$\frac{1}{25}$	4%	4%

$\frac{1}{40}$	2.5%	$2\frac{1}{2}\%$
$\frac{3}{8}$	37.5%	$37\frac{1}{2}\%$
$\frac{5}{8}$	62.5%	$62\frac{1}{2}\%$
$\frac{4}{7}$	57.14%	$57\frac{1}{7}\%$
$\frac{5}{7}$	71.42%	$71\frac{3}{7}\%$
$\frac{2}{3}$	66.66%	$66\frac{2}{3}\%$
$\frac{4}{5}$	80%	80%
$\frac{3}{4}$	75%	75%
$\frac{5}{11}$	45.45%	$45\frac{5}{11}\%$
$\frac{7}{11}$	63.63%	$63\frac{7}{11}\%$
$\frac{10}{11}$	90.90%	$90\frac{10}{11}\%$
$\frac{4}{9}$	44.44%	$44\frac{4}{9}\%$
$\frac{7}{9}$	77.77%	$77\frac{7}{9}\%$

SI and CI table for 2 years

Rate p.a	SI	CI	CI-SI
2%	4%	4.04%	0.04%
3%	6%	6.09%	0.09%
4%	8%	8.16%	0.16%
5%	10%	10.25%	0.25%
6%	12%	12.36%	0.36%
7%	14%	14.49%	0.49%
8%	16%	16.64%	0.64%
9%	18%	18.81%	0.81%
10%	20%	21%	1%
11%	22%	23.21%	1.21%
12%	24%	25.44%	1.44%
15%	30%	32.25%	2.25%
20%	40%	44%	4%
25%	50%	56.25%	6.25%
30%	60%	69%	9%

SI and CI table for 3 years

Rate p.a	SI	CI	CI-SI
2%	6%	6.12%	0.12%
3%	9%	9.27%	0.27%
4%	12%	12.48%	0.48%
5%	15%	15.76%	0.76%

6%	18%	19.1%	1.1%
7%	21%	22.5%	1.5%
8%	24%	25.97%	1.97%
9%	27%	29.50%	2.50%
10%	30%	33.1%	3.1%
11%	33%	36.76%	3.76%
12%	36%	40.49%	4.49%
15%	45%	52.08%	7.08%
20%	60%	72.80%	12.80%
25%	75%	95.31%	20.31%
30%	90%	119.70%	29.70%

Triplets (त्रिक)

❖ Some frequently used pythagorean triplets are:

कुछ अक्सर उपयोग किए जाने वाले पायथागॉरियन त्रिक हैं:

(3, 4, 5)	(5, 12, 13)	(6, 8, 10)
(7, 24, 25)	(8, 15, 17)	(9, 40, 41)
(9, 12, 15)	(10, 24, 26)	(11, 60, 61)
(12, 35, 37)	(12, 16, 20)	(14, 48, 50)
(15, 36, 39)	(15, 20, 25)	(20, 48, 52)
(21, 72, 75)	(25, 60, 65)	

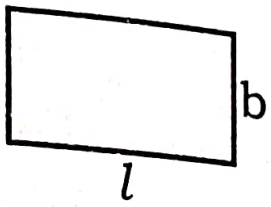
$(1, 1, \sqrt{2})$

$(1, \sqrt{3}, 2)$

$(2n, n^2-1, n^2+1)$

2D Mensuration (क्षेत्रमिति)

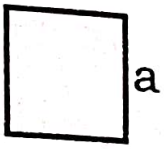
Rectangle (आयत)
l = length,
b = breadth



Area (क्षेत्रफल) $l \times b$

Perimeter (परिमाप) $2(l + b)$

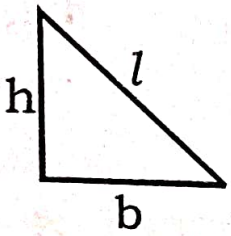
Square (वर्ग) a = side



Area (क्षेत्रफल) a^2

Perimeter (परिमाप) 4a

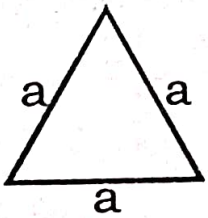
Right Angled Triangle (समकोण त्रिभुज)
b = base
h = height
l = hypotenuse



Area (क्षेत्रफल) $\frac{1}{2} \times b \times h$

Perimeter (परिमाप) $b + h + l$

Equilateral Triangle (समबाहू त्रिभुज)
a = side

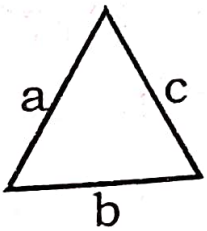


Area (क्षेत्रफल) $\left(\frac{\sqrt{3}}{4}\right) \times a^2$

Perimeter (परिमाप) 3a

Scalene Triangle (विषमबाहू त्रिभुज)

Area (क्षेत्रफल) $\sqrt{s(s-a)(s-b)(s-c)}$

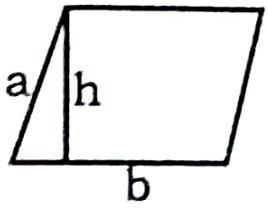


Perimeter (परिमाप) a + b + c

Semiperimeter (अर्ध परिमाप) S = (a + b + c)/2
(a, b and c) Sides of the triangle

Parallelogram b = base, h = height

(समांतर चतुर्भुज)

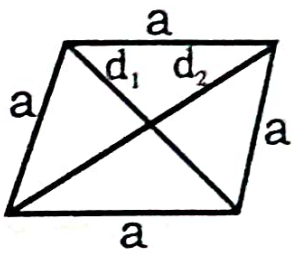


Area (क्षेत्रफल) $b \times h$

Perimeter (परिमाप) $2(a + b)$

Rhombus a = Side

(समचतुर्भुज)



d_1, d_2 = diagonals

Area (क्षेत्रफल) $\frac{1}{2} \times d_1 \times d_2$

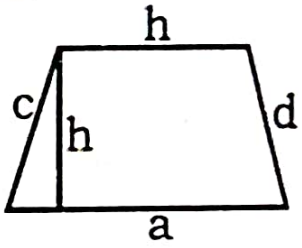
Perimeter (परिमाप) $4a$

Trapezium a, b = Parallel sides

(समलंब चतुर्भुज)

c, d=non parallel sides

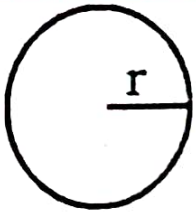
h = height



Area (क्षेत्रफल) $\frac{1}{2} \times (a + b) \times h$

Perimeter (परिमाप) $a+b+c+d$

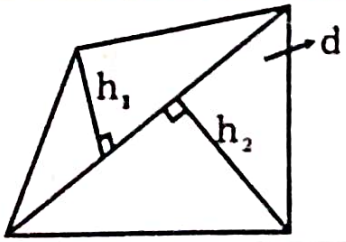
Circle (वृत्त) r = radius



Area (क्षेत्रफल) πr^2

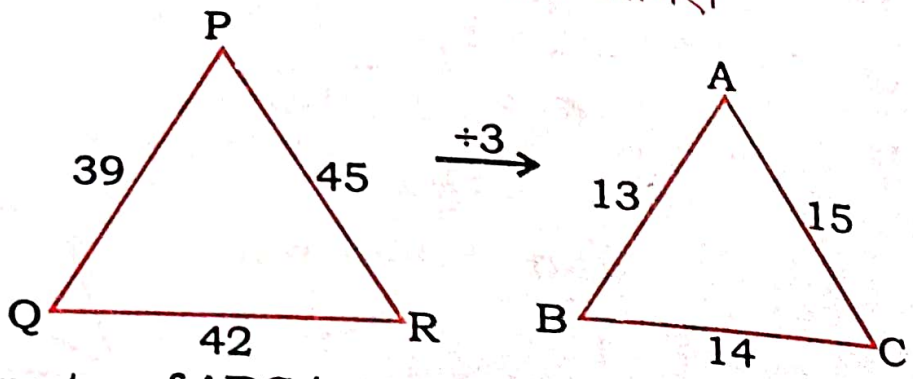
Perimeter (परिमाप) $2\pi r$

Quadrilateral (चतुर्भुज)



Area (क्षेत्रफल) $= \frac{1}{2} \times d(h_1 h_2)$

Ex. The sides of a triangle is 39cm, 42cm and 45cm. then find the perimeter and area of the triangle.
एक त्रिभुज की भुजाएँ 39 सेमी., 42 सेमी. और 45 सेमी. हैं, तो त्रिभुज का परिमाप और क्षेत्रफल ज्ञात कीजिए।



Sol. Perimeter of ABC/ΔABC का परिमाप= 13 + 14 + 15 = 42cm
Since each side is multiplied by 3, hence
चूँकि प्रत्येक भुजा को 3 से गुणा किया जाता है, इसलिए
Perimeter will also be 3 times/परिमाप भी 3 गुना होगा
∴ Perimeter of ΔPQR/ΔPQR का परिमाप
= 42 × 3 = **126 cm**
Semi-perimeter of ΔABC/ΔABC का अर्ध-परिमाप

$$= \frac{42}{2} = 21\text{cm}$$

Area of ΔABC/ΔABC का क्षेत्रफल

$$= \sqrt{21(21-13)(21-14)(21-15)}$$

$$= \sqrt{21\times8\times7\times6} = \sqrt{7\times3\times8\times7\times6}$$

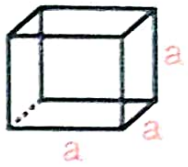
$$= 7 \times 12 = 84 \text{ cm}^2$$

Since, each side of ΔPQR is 3 times of ΔABC, then area of ΔPQR will be $(3)^2$ times of area of ΔABC.
∴ Area of ΔPQR = 84 × $(3)^2$ = 84 × 9 = **756 cm²**
चूँकि, ΔPQR की प्रत्येक भुजा ΔABC का 3 गुना है, तो ΔPQR का क्षेत्रफल ΔABC के क्षेत्रफल का $(3)^2$ गुना होगा।
ΔPQR का क्षेत्रफल = 84 × $(3)^2$ = 84 × 9 = **756 cm²**

3D Mensuration (क्षेत्रमिति)

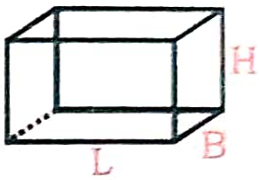
Cube (घन)

Volume	a^3
CSA/LSA	$4a^2$
TSA	$6a^2$



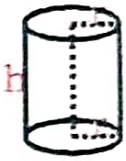
Cuboid (घनाभ)

Volume	$L \times B \times H$
CSA/LSA	$2(L + B)H$
TSA	$2(LB + BH + HL)$



Cylinder (बेलन)

Volume	$\pi r^2 h$
CSA/LSA	$2\pi rh$
TSA	$2\pi r(r + h)$



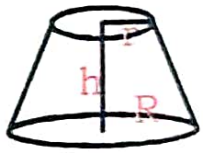
Cone (शंकु)

Volume	$\frac{1}{3}\pi r^2 h$
CSA/LSA	πrl
TSA	$\pi r(r + l)$



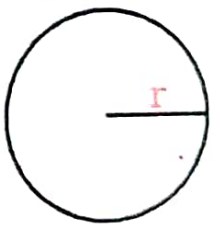
Frustum of cone (शंकु का छिन्नक)

Volume	$\frac{1}{3}\pi(R^2 + r^2 + Rr)h$
CSA/LSA	$\pi(R + r)l$
TSA	$\pi(R + r)l + \pi(R^2 + r^2)$



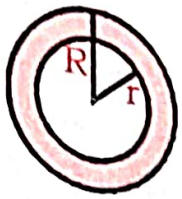
Sphere (गोला)

Volume	$\frac{4}{3}\pi r^3$
CSA/LSA	$4\pi r^2$
TSA	$4\pi r^2$



Hollow Sphere (खोखला गोला)

Volume	$\frac{4}{3}\pi(R^3 - r^3)$
TSA	$4\pi R^2$



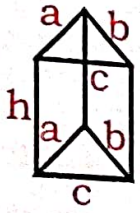
Hemi-Sphere (अर्धगोला)

Volume	$\frac{2}{3}\pi r^3$
CSA/LSA	$2\pi r^2$
TSA	$3\pi r^2$



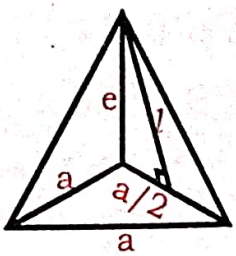
Prism (प्रिज्म)

Volume	Base area × Height
CSA/LSA	Base peri. × Height
TSA	LSA+ 2 × Base area

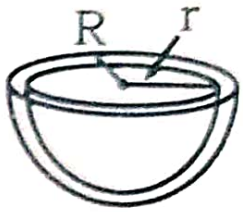


Pyramid (पिरामिड)

Volume	$\frac{1}{3}$ × Base area × H
CSA/LSA	$\frac{1}{2}$ × Base peri. × Slant h.
TSA	LSA + Base area



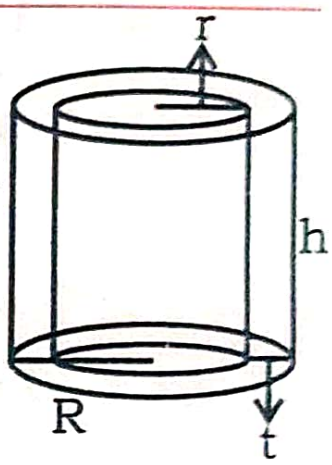
Hemispherical Bowl (अर्धगोलाकार कटोरा)



Volume	$\frac{2}{3}\pi(R^3 - r^3)$
CSA/LSA	$2\pi(R^2 + r^2)$
TSA	$3\pi R^2 + \pi r^2$

Hollow Cylinder (खोखला बेलन)

Volume	$\pi h(R^2 - r^2)$
TSA	$2\pi\,(rh + Rh + R^2 - r^2)$



02 Addition (जोड़ना) [+]

Type-1

❖ 50 + 70 = 120

इस Type के सवालों में आपकों 5 + 7 = 12 करके नहीं जोड़ना है, आपको सीधे 50 + 70 = 120 जोड़ना है।

1. 70 + 90 = _____ ?
2. 50 + 80 = _____ ?
3. 90 + 80 = _____ ?
4. 30 + 90 = _____ ?

Answer Key

1. (160) 2. (130) 3. (170) 4. (120)

Type-2

❖ 68 + 70 = 138

60 + 8 + 70 = 130 + 8 = 138

इस Type के सवालों में आपको 68 को 60 + 8 में break कर लेना है और 60 + 70 = 130 + 8 करके जोड़ना है।

1. 77 + 90 = 160 + 7 = _____ ?
2. 83 + 80 = 160 + 3 = _____ ?
3. 90 + 57 = 140 + 7 = _____ ?
4. 87 + 30 = 110 + 7 = _____ ?

Answer Key

1. (167) 2. (163) 3. (147) 4. (117)

Type-3

❖ 49 + 51 = 100

इस type के सवलों में आपको ये practice करनी है, कि हर एक number में कितना जोड़ा जाए ताकि 100 बन जाए।

1. 67 + ___ = 100
2. 35 + ___ = 100
3. 83 + ___ = 100
4. 79 + ___ = 100

Answer Key

1. (33) 2. (65) 3. (17) 4. (21)

Type-4

❖ $27 + \underline{23} = 50$

इस type के सवलों में आपको ये practice करनी है, कि हर एक number में कितना जोड़ा जाए ताकि 50 बन जाए।

1. $16 + ___ = 50$ 2. $22 + ___ = 50$
3. $37 + ___ = 50$ 4. $19 + ___ = 50$

Answer Key

1. (34) **2.** (28) **3.** (13) **4.** (31)

Type-5

❖ $376 + \underbrace{90}_{(100 - 10)} = 466$

इस type के सवलों में आपको 90 add करना है, जिसके लिए आपको 100 add करके 10 घटा देना है।

1. $794 + \underbrace{90}_{(100 - 10)} = 884$
2. $573 + \underbrace{90}_{(100 - 10)} = 663$
3. $789 + \underbrace{90}_{(100 - 10)} = 879$

Type-6

❖ $739 + \underbrace{293}_{(300 - 7)} = 1032$

इस Type के सवालों में आपको 100 का multiple बनाना है और फिर उससें कम या ज्यादा होने वाला number जोड़ या घटा देना है।

1. 632 + 207 = 839
   (200 + 7)
2. 363 + 696 = 1059
   (700 – 4)
3. 947 + 403 = 1350
4. 358 + 598 = 956

Type-7

❖ 57 + 59 = 114 + 2 = 116
   57+2 57×2

इस Type के सवालों में आस-पास के number मिलेंगे, तो आपकों छोटे no. का double करना है। और उसके बाद दोनों का Difference जोड़ देना है।

1. 35 + 39 = 35 × 2 + 4 = 74
   (35 + 4)
2. 75 + 78 = 75 × 2 + 3 = 153
3. 67 + 65 = 65 × 2 + 2 = 132
4. 87 + 89 = 87 × 2 + 2 = 176

Type-8

❖ 53 + 35 = 88
   (5 + 3) ×11

इस Type के सवालों में आपकों digit Reverse वाले numbers को Add करना है।, उस number के digit को add करके 11 से multiply कर देना है।

Day-3

1. 76 + 67 = (7 + 6) × 11 = 143
2. 69 + 96 = (6 + 9) × 11 = 165
3. 45 + 54 = (4 + 5) × 11 = 99
4. 63 + 36 = (6 + 3) × 11 = 99

Note:- किसी भी संख्या और उसके अंकों को पलट कर प्राप्त होने वाली संख्या का योग, हमेशा 11 का गुणनखंड होता है।

Exercise-1 (Find Sum)

किसी भी दो या दो से अधिक संख्या का योग करने से पहले संख्या को 10, 100, 1000 के multiple में break करके दूसरी संख्या को भी घटा/बढ़ा के योग करें।

Ex. 391 + 507

400–9 + 500+7

= 900 – 2 = **898**

1. 9 + 78 = _____?
2. 7 + 65 = _____?
3. 6 + 87 = _____?
4. 5 + 99 = _____?
5. 8 + 56 = _____?
6. 2 + 71 = _____?
7. 3 + 90 = _____?
8. 4 + 67 = _____?
9. 1 + 88 = _____?
10. 7 + 79 = _____?
11. 9 + 27 = _____?
12. 7 + 57 = _____?

Answer Key

1. (87)	**2.** (72)	**3.** (93)	**4.** (104)
5. (64)	**6.** (73)	**7.** (93)	**8.** (71)
9. (89)	**10.** (86)	**11.** (36)	**12.** (62)

Exercise-2 (Find Sum)

Ex. 98 + 8 = ?

100 – 2 + 10 – ?

= 110 – 4 = **106**

1. 19 + 3 = _____?
(a) 12 (b) 16 (c) 20 (d) 22

2. 27 + 8 = _____?
(a) 34 (b) 39 (c) 45 (d) 35

3. 39 + 8 = _____?
(a) 52 (b) 57 (c) 47 (d) 58

4. 43 + 8 = _____?
(a) 49 (b) 55 (c) 51 (d) 53

5. 57 + 8 = _____?
(a) 67 (b) 65 (c) 69 (d) 63

6. 9 + 58 = _____?
(a) 67 (b) 62 (c) 68 (d) 63

7. 7 + 87 = _____?
(a) 99 (b) 97 (c) 95 (d) 94

8. 9 + 97 = _____?
(a) 102 (b) 106 (c) 120 (d) 122

9. 93 + 8 = _____?
(a) 102 (b) 106 (c) 121 (d) 101

Answer Key

1. (22) **2.** (35) **3.** (47) **4.** (51)
5. (65) **6.** (67) **7.** (94) **8.** (106)
9. (101)

Exercise-3 (Find Sum)

Ex. 88 + 23 = _____?

Sol. 88 + 23 = ?

90 – 2 + 20 + 3

= 110 + 1 = 111

1. 79 + 18 = _____?
(a) 99 (b) 98 (c) 97 (d) 96

2. 16 + 49 = _____?
(a) 62 (b) 67 (c) 65 (d) 69

3. 37 + 67 = _____?
(a) 105 (b) 108 (c) 104 (d) 110

4. 39 + 47 = _____?
(a) 70 (b) 86 (c) 73 (d) 77

5. 57 + 78 = _____?
(a) 133 (b) 136 (c) 135 (d) 137

6. 79 + 87 = _____?
(a) 168 (b) 166 (c) 167 (d) 169

7. 97 + 13 = _____?
(a) 113 (b) 122 (c) 100 (d) 110

8. 57 + 71 = _____?
(a) 125 (b) 128 (c) 126 (d) 129

9. 88 + 95 = _____?
(a) 180 (b) 181 (c) 183 (d) 182

Answer Key

1. (c) **2.** (c) **3.** (c) **4.** (b) **5.** (c) **6.** (b) **7.** (d) **8.** (b) **9.** (c)

Exercise-4 (Find Sum)

1. 27 + 46 = _____?
2. 58 + 39 = _____?
3. 72 + 83 = _____?
4. 91 + 24 = _____?
5. 65 + 78 = _____?
6. 37 + 94 = _____?
7. 80 + 49 = _____?
8. 56 + 77 = _____?
9. 99 + 88 = _____?
10. 45 + 67 = _____?
11. 97 + 54 = _____?
12. 82 + 91 = _____?
13. 76 + 88 = _____?
14. 59 + 95 = _____?

Answer Key

1. (73) **2.** (97) **3.** (155) **4.** (115)
5. (143) **6.** (131) **7.** (129) **8.** (133)
9. (187) **10.** (112) **11.** (151) **12.** (173)
13. (164) **14.** (154)

Exercise-5 (Find Sum)

1. 23 + 45 + 67 = _____?
2. 56 + 78 + 90 = _____?
3. 12 + 34 + 56 = _____?
4. 89 + 76 + 54 = _____?
5. 31 + 42 + 53 = _____?
6. 74 + 85 + 96 = _____?
7. 19 + 28 + 37 = _____?
8. 62 + 73 + 84 = _____?
9. 55 + 66 + 77 = _____?
10. 41 + 52 + 63 = _____?
11. 99 + 88 + 77 = _____?
12. 21 + 43 + 65 = _____?
13. 57 + 68 + 79 = _____?
14. 93 + 82 + 71 = _____?

Answer Key

1. (135) **2.** (224) **3.** (102) **4.** (219)
5. (126) **6.** (255) **7.** (84) **8.** (219)
9. (198) **10.** (156) **11.** (264) **12.** (129)
13. (204) **14.** (246)

Exercise-6 (Find Sum)

Ex. 65 + 87 + 90 = _____?

Sol. 65 + 87 + 90

60 + 5 + 90 – 3 + 100 – 10

= 250 + 5 – 15 = **240**

1. 23 + 45 + 77 = _____?

(a) 145 (b) 125 (c) 115 (d) 145

2. 98 + 76 + 54 = _____?

(a) 218 (b) 228 (c) 238 (d) 248

3. 12 + 34 + 56 + 78 = _____?

(a) 170 (b) 180 (c) 190 (d) 200

4. 21 + 32 + 43 + 54 = _____?

(a) 140 (b) 150 (c) 160 (d) 170

Day-3

5. 98 + 76 + 54 + 32 = _____?
   (a) 261 (b) 260 (c) 262 (d) 263
6. 23 + 64 + 12 + 76 + 97 = _____?
   (a) 282 (b) 272 (c) 275 (d) 279
7. 98 + 45 + 93 + 59 + 62 = _____?
   (a) 382 (b) 352 (c) 357 (d) 379
8. 19 + 93 + 75 + 73 + 57 = _____?
   (a) 328 (b) 317 (c) 375 (d) 379
9. 34 + 76 + 38 + 72 + 52 = _____?
   (a) 282 (b) 272 (c) 275 (d) 279
10. 233 + 44 + 126 + 61 + 70 = _____?
    (a) 482 (b) 534 (c) 635 (d) 439
11. 634 + 64 + 122 + 76 + 197 = _____?
    (a) 1283 (b) 1272 (c) 1093 (d) 1273
12. 86 + 164 + 172 + 726 + 97 = _____?
    (a) 1245 (b) 1272 (c) 1275 (d) 1275
13. 23 + 464 + 31 + 576 + 497 = _____?
    (a) 1282 (b) 1671 (c) 1575 (d) 1591
14. 457 + 164 + 834 + 432 + 78 + 234 + 923 + 93 = _____?
    (a) 3285 (b) 3215 (c) 3275 (d) 3279

Answer Key

1. (a) **2.** (b) **3.** (b) **4.** (b) **5.** (b) **6.** (b) **7.** (c)
8. (b) **9.** (b) **10.** (b) **11.** (c) **12.** (a) **13.** (d) **14.** (b)

1. 48 + 37 = _____ ?
2. 92 + 58 = _____ ?
3. 76 + 43 = _____ ?
4. 125 + 234 = _____ ?
5. 178 + 462 = _____ ?
6. 391 + 507 = _____ ?
7. 684 + 315 = _____ ?
8. 259 + 728 = _____ ?
9. 421 + 593 = _____ ?
10. 345 + 678 = _____ ?
11. 1523 + 2894 = _____ ?
12. 4786 + 2137 = ___ ?

Day-3

13. 3625 + 4478 = _____ ?
14. 1987 + 3745 = ____ ?
15. 5093 + 6184 = _____ ?
16. 7291 + 3542 = ____ ?
17. 4815 + 2769 = _____ ?
18. 6934 + 4086 = ____ ?
19. 5298 + 6791 = _____ ?
20. 3814 + 4285 = ____ ?
21. 18973 + 26349 = _____ ?
22. 72345 + 51892 = _____ ?
23. 159824 + 279631 = _____ ?
24. 50983 + 67219 = _____ ?
25. 3.25 + 4.89 = _____ ?
26. 12.75 + 9.63 = _____ ?
27. 48.91 + 23.45 = _____ ?
28. 139.48 + 256.32 = _____ ?
29. 785.45+2937.12=_____ ?
30. 8235.69 + 4792.31 = _____ ?

Answer Key

1. 85	**2.** 150	**3.** 119	**4.** 359
5. 640	**6.** 898	**7.** 999	**8.** 987
9. 1014	**10.** 1023	**11.** 4417	**12.** 6923
13. 8103	**14.** 5732	**15.** 11277	**16.** 10833
17. 7584	**18.** 11020	**19.** 12089	**20.** 8099
21. 45322	**22.** 124237	**23.** 439455	**24.** 118202
25. 8.14	**26.** 22.38	**27.** 72.36	**28.** 395.80
29. 3722.57	**30.** 13028		

Exercise-7 (Find Sum)

Ex. 345 + 678 + 901 = _____?

Sol. 345 + 678 + 901

(400 – 55) + 600 + 78 + 900 + 1

= 1900 + 24 = **1924**

Day-3

1. 456 + 789 + 123 = _____?
   (a) 1368 (b) 1358 (c) 1348 (d) 1338
2. 102 + 203 + 304 = _____?
   (a) 607 (b) 608 (c) 609 (d) 610
3. 567 + 432 + 123 = _____?
   (a) 1122 (b) 1112 (c) 1102 (d) 1092
4. 432 + 654 + 876 = _____?
   (a) 1961 (b) 1962 (c) 1960 (d) 1959
5. 876 + 543 + 210 = _____?
   (a) 1626 (b) 1628 (c) 1627 (d) 1629
6. 321 + 432 + 543 = _____?
   (a) 1294 (b) 1295 (c) 1296 (d) 1293
7. 678 + 901 + 234 = _____?
   (a) 1811 (b) 1812 (c) 1813 (d) 1810
8. 789 + 234 + 567 + 123 = _____?
   (a) 1711 (b) 1712 (c) 1713 (d) 1710
9. 345 + 678 + 123 + 456 = _____?
   (a) 1599 (b) 1601 (c) 1600 (d) 1602
10. 123 + 234 + 345 + 456 = _____?
    (a) 1158 (b) 1157 (c) 1156 (d) 1155
11. 210 + 321 + 432 + 543 = _____?
    (a) 1506 (b) 1505 (c) 1504 (d) 1503
12. 876 + 765 + 654 + 543 = _____?
    (a) 2835 (b) 2837 (c) 2836 (d) 2838
13. 901 + 789 + 678 + 567 = _____?
    (a) 2934 (b) 2935 (c) 2933 (d) 2932

14. 923 + 864 + 712 + 676 + 597 = _____?
(a) 2282 (b) 3772 (c) 3275 (d) 4279

15. 723 + 234 + 760 + 219 + 497 + 896 + 542 + 132 = _____?
(a) 4003 (b) 4122 (c) 4200 (d) 4279

16. 233 + 335 + 367 + 764 + 917 + 134 + 124 + 923 + 913 = _____?
(a) 4582 (b) 4710 (c) 6275 (d) 5279

17. 2326 + 1324 + 245 + 799 + 975 + 2356 + 134 + 235 + 2467 = _____?
(a) 11282 (b) 10272 (c) 10861 (d) 13279

Answer Key

1. (a) **2.** (c) **3.** (a) **4.** (b) **5.** (d) **6.** (c) **7.** (c)
8. (c) **9.** (d) **10.** (a) **11.** (a) **12.** (d) **13.** (b) **14.** (b)
15. (a) **16.** (b) **17.** (c)

Exercise-8 (Find Sum)

Ex. 1789 + 2678 + 3456 = _____?

Sol. 1789 + 2678 + 3456 = ?
= 1800 – 11 + 2700 – 22 + 3400 + 56
= 7900 – 33 + 56 = 7923

1. 2468 + 1357 + 9876 = _____?
(a) 13704 (b) 13702 (c) 13703 (d) 13701

2. 11234 + 22345 + 33456 = _____?
(a) 67033 (b) 67034 (c) 67035 (d) 67032

3. 98765 + 87654 + 76543 = _____?
(a) 262960 (b) 262961 (c) 262962 (d) 262959

4. 54321 + 65432 + 76543 = _____?
(a) 196293 (b) 196295 (c) 196294 (d) 196296

5. 67890 + 78901 + 89012 = _____?
(a) 235801 (b) 235802 (c) 235803 (d) 235800

6. 87654 + 76543 + 65432 = _____?
(a) 229626 (b) 229628 (c) 229627 (d) 229629

7. 9876 + 8765 + 7654 + 6543 = _____?
(a) 32840 (b) 32839 (c) 32838 (d) 32841

8. 56234 + 43210 + 32109 + 21098 = _____?
(a) 152648 (b) 152650 (c) 152649 (d) 152651

9. 78965 + 67854 + 56743 + 45632 = _____?
(a) 249194 (b) 249195 (c) 249196 (d) 249197

10. 23456 + 34567 + 45678 + 56789 = _____?
(a) 160491 (b) 160490 (c) 160492 (d) 160493

11. 67890 + 56789 + 45678 + 34567 = _____?
(a) 204926 (b) 204925 (c) 204924 (d) 204927

12. 13579 + 24680 + 98765 + 12345 = _____?
(a) 149369 (b) 149370 (c) 149371 (d) 149372

13. 87654 + 76543 + 65432 + 54321 = _____?
(a) 283949 (b) 283950 (c) 283948 (d) 283947

14. 10234 + 20345 + 30456 + 40567 = _____?
(a) 101603 (b) 101602 (c) 101604 (d) 101605

15. 32109 + 43210 + 54321 + 65432 = _____?
(a) 195072 (b) 195071 (c) 195070 (d) 195069

16. 34567 + 45678 + 56789 + 67890 = _____?
(a) 204926 (b) 204925 (c) 204924 (d) 204927

17. 10987 + 9876 + 8765 + 7654 = _____?
(a) 37282 (b) 37281 (c) 37280 (d) 37279

18. 12345 + 23456 + 34567 + 45678 = _____?
(a) 116045 (b) 116046 (c) 116044 (d) 116043

Day-3

19. 54321 + 65432 + 76543 + 87654 = _____?

(a) 283947 (b) 283949 (c) 283948 (d) 28395

Answer Key

1. (d) **2.** (c) **3.** (c) **4.** (d) **5.** (c) **6.** (d) **7.** (c)
8. (d) **9.** (a) **10.** (b) **11.** (c) **12.** (a) **13.** (b) **14.** (b)
15. (a) **16.** (c) **17.** (a) **18.** (b) **19.** (d)

Exercise-9 (Find Sum)

Ex. 95.7 + 9.0 = ?

= 90 + 5.7 + 9.0 = 99 + 5.7 = **104.7**

1. 3.45 + 6.789 = _____?

(a) 10.239 (b) 10.149 (c) 10.579 (d) 9.879

2. 67.9 + 5.7 = _____?

(a) 73.6 (b) 76.3 (c) 73.2 (d) 77.8

3. 48.2 + 6.6 = _____?

(a) 54.8 (b) 56.3 (c) 53.6 (d) 57.1

4. 95.7 + 8.0 = _____?

(a) 102.7 (b) 106.7 (c) 100.7 (d) 103.7

5. 47.3 + 18.8 = _____?

(a) 45.1 (b) 66.1 (c) 49.1 (d) 61.1

6. 78.9 + 6.6 = _____?

(a) 84.5 (b) 85.5 (c) 86.5 (d) 87.3

7. 38.5 + 5.5 = _____?

(a) 43.0 (b) 46.0 (c) 49.2 (d) 44.0

8. 88.3 + 27.5 = _____?

(a) 119.8 (b) 108.6 (c) 115.8 (d) 110.8

9. 67.89 + 23.07 = _____?

(a) 90.96 (b) 90.95 (c) 91.96 (d) 93.66

10. 34.10 + 45.64 = _____?

(a) 79.67 (b) 79.74 (c) 80.74 (d) 77.89

11. 12.84 + 91.06 = _____?
(a) 103.9 (b) 108.9 (c) 111.6 (d) 110.8

12. 65.22 + 23.08 = _____?
(a) 88.89 (b) 88.30 (c) 87.30 (d) 89.70

13. 12.345 + 9.876 = _____?
(a) 21.221 (b) 22.221 (c) 23.221 (d) 20.221

14. 0.567 + 1.234 + 3.678 = _____?
(a) 5.479 (b) 5.389 (c) 5.679 (d) 5.589

15. 8.76 + 4.321 + 7.89 = _____?
(a) 20.971 (b) 21.181 (c) 21.381 (d) 21.581

16. 45.678 + 12.34 + 0.987 = _____?
(a) 58.995 (b) 59.005 (c) 58.905 (d) 59.105

17. 5.432 + 3.21 + 0.678 + 7.89 = _____?
(a) 17.21 (b) 17.33 (c) 17.45 (d) 17.78

18. 89.654 + 0.876 + 1.432 = _____?
(a) 91.952 (b) 91.942 (c) 91.962 (d) 91.982

19. 10.987 + 4.321 + 2.543 = _____?
(a) 17.851 (b) 17.951 (c) 17.861 (d) 17.761

20. 6.789 + 9.123 + 3.456 = _____?
(a) 19.368 (b) 19.478 (c) 19.568 (d) 19.678

21. 34.56 + 12.789 + 0.876 + 9.34 = _____?
(a) 57.565 (b) 57.765 (c) 57.865 (d) 57.965

22. 2.345 + 6.78 + 12.34 + 0.987 = _____?
(a) 22.462 (b) 22.452 (c) 22.472 (d) 22.482

23. 78.432 + 9.123 + 2.456 = _____?
(a) 90.011 (b) 90.021 (c) 90.031 (d) 90.041

24. 13.789 + 3.456 + 7.891 = _____?
(a) 25.236 (b) 25.136 (c) 25.336 (d) 25.436

Day-4

25. 1.234 + 9.876 + 3.45 + 8.76 = _____?
(a) 23.32 (b) 23.22 (c) 23.12 (d) 23.42

26. 6.543 + 3.21 + 1.987 + 4.56 = _____?
(a) 16.3 (b) 16.2 (c) 16.1 (d) 16.4

27. 23.45 + 12.34 + 0.987 = _____?
(a) 36.777 (b) 36.877 (c) 36.577 (d) 36.677

28. 8.764 + 3.21 + 6.543 + 9.876 = _____?
(a) 28.393 (b) 28.493 (c) 28.593 (d) 28.693

29. 12.34 + 6.789 + 3.456 = _____?
(a) 22.485 (b) 22.585 (c) 22.685 (d) 22.785

30. 34.567 + 9.876 + 2.345 + 7.891 = _____?
(a) 54.479 (b) 54.679 (c) 54.579 (d) 54.779

31. 45.678 + 12.345 + 3.21 = _____?
(a) 61.233 (b) 61.133 (c) 61.033 (d) 61.333

Answer Key

1. (a) **2.** (a) **3.** (a) **4.** (d) **5.** (b) **6.** (b) **7.** (d)
8. (c) **9.** (a) **10.** (b) **11.** (a) **12.** (b) **13.** (b) **14.** (a)
15. (a) **16.** (b) **17.** (a) **18.** (c) **19.** (a) **20.** (a) **21.** (a)
22. (b) **23.** (a) **24.** (b) **25.** (a) **26.** (a) **27.** (a) **28.** (a)
29. (b) **30.** (b) **31.** (a)

Exercise-10 (Find Sum of digits)

1. 7720473791512774082 = _____?
(a) 84 (b) 83 (c) 85 (d) 86

2. 2080670681883629566 = _____?
(a) 91 (b) 89 (c) 90 (d) 88

3. 5025840402136910746 = _____?
(a) 68 (b) 67 (c) 65 (d) 66

4. 91221653294530926 33 = _____?

(a) 72 (b) 74 (c) 73 (d) 75

5. 46439465004923061 27 = _____?

(a) 75 (b) 76 (c) 78 (d) 77

6. 83067220897874327 40 = _____?

(a) 88 (b) 89 (c) 87 (d) 90

7. 48960715354220577 88 = _____?

(a) 91 (b) 92 (c) 93 (d) 94

8. 53733777779153169 98 = _____?

(a) 106 (b) 105 (c) 108 (d) 107

9. 70424833967135418 02 = _____?

(a) 75 (b) 76 (c) 77 (d) 78

10. 24484885207096212 04 = _____?

(a) 75 (b) 76 (c) 77 (d) 78

11. 43081528683503534 56 = _____?

(a) 80 (b) 79 (c) 78 (d) 77

12. 14853366915771914 2 = _____?

(a) 81 (b) 83 (c) 84 (d) 82

13. 46279014178603304 22 = _____?

(a) 69 (b) 68 (c) 67 (d) 70

14. 45885603400099190 06 = _____?

(a) 76 (b) 75 (c) 77 (d) 74

15. 98462035148979211 96 = _____?

(a) 93 (b) 92 (c) 94 (d) 95

16. 45660577393451539 56 = _____?

(a) 93 (b) 94 (c) 95 (d) 96

17. 75308694415602433 14 = _____?
(a) 74 (b) 75 (c) 73 (d) 76

18. 628719875093074338 8 = _____?
(a) 97 (b) 98 (c) 99 (d) 96

19. 627247974559714076 = _____?
(a) 92 (b) 91 (c) 90 (d) 93

20. 585454492447143206 4 = _____?
(a) 82 (b) 81 (c) 83 (d) 80

21. 213858097575569044 5 = _____?
(a) 95 (b) 94 (c) 96 (d) 93

22. 329581643388328771 2 = _____?
(a) 93 (b) 91 (c) 90 (d) 92

23. 162429774998606917 2 = _____?
(a) 99 (b) 96 (c) 97 (d) 98

24. 543381982057142426 8 = _____?
(a) 83 (b) 82 (c) 84 (d) 85

25. 858151950928599070 3 = _____?
(a) 92 (b) 93 (c) 94 (d) 95

Answer Key

1. (b) **2.** (a) **3.** (b) **4.** (d) **5.** (a) **6.** (c) **7.** (a)
8. (d) **9.** (c) **10.** (b) **11.** (b) **12.** (d) **13.** (a) **14.** (c)
15. (c) **16.** (a) **17.** (b) **18.** (b) **19.** (a) **20.** (b) **21.** (d)
22. (c) **23.** (a) **24.** (b) **25.** (c)

03 Subtraction (घटाव) [–]

Type-1

❖ $573 - \underbrace{90}_{(-100 + 10)} = 473 + 10 = 483$

इस Type के सवालों में आपको पहले 100 minus करना है और उसके बाद 10 add कर देना है।

1. 642 – 90 = 542 + 10 = _____?
2. 757 – 90 = 657 + 10 = _____?
3. 938 – 90 = 838 + 10 = _____?
4. 789 – 90 = 689 + 10 = _____?

Answer Key

1. (552) **2.** (667) **3.** (848) **4.** (699)

Type-2

❖ $\underbrace{97 - 79}_{(2 \times 9)} = 18$

इस Type के सवालों में digit reverse होते है। जिस no. का difference find करना होता है। तो इन जैसे सवालों में आपको digit के diff. से 9 को Multiply कर देना है।

1. 53 – 35 = (5 – 3) × 9 = _____?
2. 91 – 19 = (9 – 1) × 9 = _____?
3. 74 – 47 = (7 – 4) × 9 = _____?
4. 82 – 28 = (8 – 2) × 9 = _____?

Day-4
Answer Key

1. (18) **2.** (72) **3.** (27) **4.** (54)

Note: जब भी किसी No. और उसके no. के digit को reverse करके बने No. का difference हमेशा 9 का Multiple होगा।

Type-3

❖ 127 – 93 = 34

इस Type के सवालों में 100 या 100 के Multiple से कम या ज्यादा find करना है और फिर उसे add कर देना है।

Ex. 100 + 27 – (100 – 7) = 27 + 7 = 34

1. 137 – 67 = (37 + 33) = _____?

2. 567 – 476 = 67 + 24 = _____?

3. 658 – 598 = 58 + 2 = _____?

4. 789 – 693 = 89 + 7 = _____?

1. (70) **2.** (91) **3.** (60) **4.** (96)

Type-4

❖ 576 – 197 = 379

576 – (200 – 3) = 376 + 3 = 379

इस Type के सवालों में आपको 100 या उसके Multiple के nearest no. को घटाना है, तो पहले हम 100 या उसका multiple घटा देंगे फिर जो extra होगा, उसको जोड़ या घटा देंगे।

1. 632 – 293 = (632 – 300 + 7) _____?

2. 845 – 596 = (845 – 600 + 4) _____?

3. 976 – 398 = (976 – 400 + 2) _____?

4. 777 – 397 = (777 – 400 + 3) _____?

Answer Key

1. (339) **2.** (249) **3.** (578) **4.** (380)

Some Easy Questions-1

1. 24 – 7 = _____?
2. 38 – 5 = _____?
3. 42 – 6 = _____?
4. 57 – 8 = _____?
5. 63 – 9 = _____?
6. 89 – 5 = _____?
7. 74 – 6 = _____?
8. 97 – 8 = _____?
9. 65 – 9 = _____?
10. 81 – 7 = _____?
11. 92 – 4 = _____?
12. 55 – 3 = _____?
13. 68 – 9 = _____?
14. 79 – 2 = _____?
15. 90 – 8 = _____?

Answer Key

1. (17) **2.** (33) **3.** (36) **4.** (49)
5. (54) **6.** (84) **7.** (68) **8.** (89)
9. (56) **10.** (74) **11.** (88) **12.** (52)
13. (59) **14.** (77) **15.** (82)

Some Easy Questions-2

1. 98 – 47 = _____?
2. 87 – 39 = _____?
3. 76 – 58 = _____?
4. 95 – 62 = _____?
5. 83 – 77 = _____?
6. 99 – 84 = _____?
7. 72 – 59 = _____?
8. 88 – 65 = _____?
9. 69 – 47 = _____?
10. 94 – 78 = _____?
11. 89 – 56 = _____?
12. 96 – 73 = _____?
13. 75 – 48 = _____?
14. 92 – 67 = _____?
15. 84 – 58 = _____?
16. 97 – 69 = _____?
17. 66 – 49 = _____?
18. 91 – 82 = _____?
19. 79 – 64 = _____?
20. 85 – 57 = _____?

Day-4

Answer Key

1. (51)	**2.** (48)	**3.** (18)	**4.** (33)
5. (6)	**6.** (15)	**7.** (13)	**8.** (23)
9. (22)	**10.** (16)	**11.** (33)	**12.** (23)
13. (27)	**14.** (25)	**15.** (26)	**16.** (28)
17. (17)	**18.** (9)	**19.** (15)	**20.** (28)

Find the difference.

1. 100 – 11 = _____?	**2.** 100 – 26 = _____?
3. 100 – 39 = _____?	**4.** 100 – 45 = _____?
5. 100 – 57 = _____?	**6.** 100 – 63 = _____?
7. 100 – 75 = _____?	**8.** 100 – 81 = _____?
9. 100 – 90 = _____?	**10.** 100 – 98 = _____?
11. 100 – 16 = _____?	**12.** 100 – 27 = _____?
13. 100 – 34 = _____?	**14.** 100 – 42 = _____?
15. 100 – 59 = _____?	**16.** 100 – 64 = _____?
17. 100 – 76 = _____?	**18.** 100 – 83 = _____?
19. 100 – 88 = _____?	**20.** 100 – 67 = _____?
21. 1000 – 14 = _____?	**22.** 1000 – 29 = _____?
23. 1000 – 38 = _____?	**24.** 1000 – 47 = _____?
25. 1000 – 56 = _____?	**26.** 1000 – 69 = _____?
27. 1000 – 72 = _____?	**28.** 1000 – 85 = _____?
29. 1000 – 91 = _____?	**30.** 1000 – 98 = _____?

Answer Key

1. (89)	**2.** (74)	**3.** (61)	**4.** (55)
5. (43)	**6.** (37)	**7.** (25)	**8.** (19)
9. (10)	**10.** (2)	**11.** (84)	**12.** (73)
13. (66)	**14.** (58)	**15.** (41)	**16.** (36)
17. (24)	**18.** (17)	**19.** (12)	**20.** (33)
21. (986)	**22.** (971)	**23.** (962)	**24.** (953)
25. (944)	**26.** (931)	**27.** (928)	**28.** (915)
29. (909)	**30.** (902)		

Exercise-1 (Find Difference)

Ex. 123 – 69 = ?

120 + 3 – 60 – 9

= 60 – 6 = **54**

1. 100 – 69 = _____?
2. 100 – 37 = _____?
3. 100 – 53 = _____?
4. 100 – 17 = _____?
5. 100 – 78 = _____?
6. 85 – 27 = _____?
7. 93 – 49 = _____?
8. 71 – 57 = _____?
9. 73 – 35 = _____?
10. 67 – 39 = _____?
11. 123 – 69 = _____?
12. 183 – 56 = _____?
13. 148 – 67 = _____?
14. 175 – 88 = _____?
15. 143 – 69 = _____?
16. 875 – 432 = _____?
17. 764 – 289 = _____?
18. 905 – 317 = _____?
19. 632 – 458 = _____?
20. 890 – 275 = _____?
21. 723 – 348 = _____?
22. 999 – 641 = _____?
23. 510 – 392 = _____?
24. 845 – 679 = _____?
25. 600 – 258 = _____?
26. 611 – 328 = _____?
27. 777 – 654 = _____?
28. 940 – 235 = _____?
29. 555 – 276 = _____?
30. 880 – 499 = _____?

Answer Key

1. (31) **2.** (63) **3.** (47) **4.** (83)
5. (22) **6.** (58) **7.** (44) **8.** (14)
9. (38) **10.** (28) **11.** (54) **12.** (127)
13. (81) **14.** (87) **15.** (74) **16.** (443)
17. (475) **18.** (588) **19.** (174) **20.** (615)
21. (375) **22.** (358) **23.** (118) **24.** (166)
25. (342) **26.** (283) **27.** (123) **28.** (705)
29. (279) **30.** (381)

Exercise-2

1. 8 + 76 – 43 = _____?
   (a) 42 (b) 41 (c) 43 (d) 44
2. 23 – 12 + 98 = _____?
   (a) 109 (b) 110 (c) 111 (d) 112
3. 56 + 43 – 21 = _____?
   (a) 80 (b) 79 (c) 78 (d) 81
4. 78 – 67 + 56 = _____?
   (a) 66 (b) 67 (c) 68 (d) 69
5. 432 + 321 – 210 = _____?
   (a) 545 (b) 544 (c) 543 (d) 546
6. 987 – 876 + 765 – 654 = _____?
   (a) 223 (b) 222 (c) 224 (d) 225
7. 654 + 543 – 432 – 321 = _____?
   (a) 447 (b) 445 (c) 446 (d) 444
8. 975 + 864 – 753 – 642 = _____?
   (a) 445 (b) 444 (c) 446 (d) 447
9. 345 – 234 + 123 – 98 = _____?
   (a) 137 (b) 136 (c) 138 (d) 139
10. 567 + 456 – 345 – 234 = _____?
    (a) 444 (b) 445 (c) 446 (d) 447
11. 789 – 678 + 567 – 456 = _____?
    (a) 224 (b) 223 (c) 222 (d) 225
12. 543 + 432 – 321 – 210 = _____?
    (a) 447 (b) 445 (c) 446 (d) 444
13. 678 – 567 + 456 – 345 = _____?
    (a) 222 (b) 223 (c) 224 (d) 225

14. 876 + 765 – 654 – 543 = _____?
(a) 446 (b) 445 (c) 444 (d) 447

15. 901 – 789 + 678 – 567 = _____?
(a) 224 (b) 223 (c) 225 (d) 226

16. 234 – 123 + 98 – 87 = _____?
(a) 122 (b) 123 (c) 124 (d) 125

Answer Key

1. (b) **2.** (a) **3.** (c) **4.** (b) **5.** (c) **6.** (b) **7.** (d)
8. (b) **9.** (b) **10.** (a) **11.** (c) **12.** (d) **13.** (a) **14.** (c)
15. (b) **16.** (a)

Exercise-3

1. 8 + 67 – 345 = _____?
(a) –270 (b) –269 (c) –268 (d) –267

2. 234 – 12 + 9 = _____?
(a) 229 (b) 230 (c) 231 (d) 232

3. 65 + 432 – 98 = _____?
(a) 399 (b) 400 (c) 401 (d) 402

4. 78 – 8 + 654 = _____?
(a) 725 (b) 724 (c) 726 (d) 727

5. 432 + 3 – 210 = _____?
(a) 228 (b) 226 (c) 227 (d) 225

6. 987 – 87 + 6 – 654 = _____?
(a) 254 (b) 253 (c) 252 (d) 255

7. 654 + 5 – 43 – 321 = _____?
(a) 297 (b) 296 (c) 295 (d) 298

8. 987 + 8 – 76 – 65 = _____?
(a) 855 (b) 854 (c) 856 (d) 857

Day-4

9. 345 – 9 + 1 – 98 = _____?
(a) 239 (b) 240 (c) 241 (d) 242

10. 56 + 4 – 987 – 3 = _____?
(a) –931 (b) –930 (c) –932 (d) –933

11. 789 – 6 + 23 – 45 = _____?
(a) 763 (b) 762 (c) 761 (d) 764

12. 543 + 32 – 1 – 210 = _____?
(a) 367 (b) 365 (c) 366 (d) 364

13. 678 – 7 + 56 – 45 = _____?
(a) 685 (b) 683 (c) 684 (d) 682

14. 876 + 7 – 65 – 4 = _____?
(a) 814 (b) 815 (c) 816 (d) 817

15. 901 – 9 + 78 – 6 = _____?
(a) 966 (b) 965 (c) 964 (d) 967

16. 234 – 1 + 9 – 87 = _____?
(a) 157 (b) 156 (c) 155 (d) 158

17. 567 + 4 – 345 – 23 = _____?
(a) 206 (b) 204 (c) 205 (d) 203

18. 789 – 4 + 67 – 3 = _____?
(a) 852 (b) 850 (c) 851 (d) 849

19. 543 + 21 – 321 – 3 = _____?
(a) 240 (b) 241 (c) 242 (d) 243

20. 678 – 7 + 89 – 6 = _____?
(a) 756 (b) 755 (c) 754 (d) 757

Answer Key

1. (a) 2. (c) 3. (a) 4. (b) 5. (d) 6. (c) 7. (c)
8. (b) 9. (a) 10. (b) 11. (c) 12. (d) 13. (d) 14. (a)
15. (c) 16. (c) 17. (d) 18. (d) 19. (a) 20. (c)

Exercise-4

Ex. 5634 − 2875 = ?

5600 + 34 − 2800 − 75

= 2800 − 41 = **2759**

1. 86 − 47 = ___ ?
2. 92 − 58 = ___ ?
3. 135 − 48 = ___ ?
4. 278 − 129 = ___ ?
5. 564 − 327 = ___ ?
6. 842 − 476 = ___ ?
7. 695 − 258 = ___ ?
8. 930 − 485 = ___ ?
9. 782 − 374 = ___ ?
10. 624 − 197 = ___ ?
11. 5234 − 2875 = ___ ?
12. 6748 − 3592 = ___ ?
13. 8456 − 4297 = ___ ?
14. 9273 − 6384 = ___ ?
15. 5082 − 2941 = ___ ?
16. 7395 − 4823 = ___ ?
17. 9218 − 5742 = ___ ?
18. 6237 − 3894 = ___ ?
19. 8999 − 4328 = ___ ?
20. 7564 − 3852 = ___ ?
21. 23847 − 12659 = ___ ?
22. 51462 − 32879 = ___ ?
23. 78431 − 56428 = ___ ?
24. 78213 − 47891 = ___ ?
25. 25.47 − 13.82 = ___ ?
26. 78.92 − 43.58 = ___ ?
27. 143.86 − 98.47 = ___ ?
28. 573.45 − 386.78 = ___ ?
29. 9824.37 − 4567.23 = ___ ?
30. 10256.89 − 7423.56 = ___ ?

Answer Key

1. 39 **2.** 34 **3.** 87 **4.** 149
5. 237 **6.** 366 **7.** 437 **8.** 445
9. 408 **10.** 427 **11.** 2359 **12.** 3156
13. 4159 **14.** 2889 **15.** 2141 **16.** 2572
17. 3476 **18.** 2343 **19.** 4671 **20.** 3712
21. 11188 **22.** 18583 **23.** 22003 **24.** 30322
25. 11.65 **26.** 35.34 **27.** 45.39 **28.** 186.67
29. 5257.14 **30.** 2833.33

Exercise-5

दो संख्याओं को पहले 10,100,1000 के गुणात्मक रूप में बनाकर हुई संख्या का योग/घटाव प्रश्न अनुसार करें।

Ex. 2343 – 2269

= 2300 + 43 – 2300 + 31 = **74**

1. **529 – 452 = _____?**
   (a) 87 (b) 78 (c) 77 (d) 79
2. **956 – 629 = _____?**
   (a) 334 (b) 327 (c) 431 (d) 319
3. **823 – 286 = _____?**
   (a) 613 (b) 534 (c) 537 (d) 593
4. **581 – 396 = _____?**
   (a) 189 (b) 141 (c) 185 (d) 182
5. **923 – 232 = _____?**
   (a) 691 (b) 641 (c) 731 (d) 719
6. **2574 – 869 = _____?**
   (a) 1721 (b) 1841 (c) 1705 (d) 1819
7. **6724 – 4573 = _____?**
   (a) 2121 (b) 2147 (c) 2151 (d) 2229
8. **2343 – 2269 = _____?**
   (a) 86 (b) 175 (c) 74 (d) 78
9. **9134 – 8623 = _____?**
   (a) 723 (b) 511 (c) 923 (d) 634
10. **8362 – 6969 = _____?**
    (a) 1921 (b) 1741 (c) 1393 (d) 1419
11. **2345 – 1069 = _____?**
    (a) 1521 (b) 1841 (c) 1276 (d) 1319
12. **4475 – 1389 = _____?**
    (a) 4021 (b) 3086 (c) 3831 (d) 3119

13. 32624 – 4569 = _____?
(a) 28055 (b) 29341 (c) 28631 (d) 27119

14. 54218 – 34642 = _____?
(a) 18544 (b) 19641 (c) 19576 (d) 19526

15. 82453 – 27878 = _____?
(a) 54203 (b) 54575 (c) 52331 (d) 59219

Answer Key

1. (c) **2.** (b) **3.** (c) **4.** (c) **5.** (a) **6.** (c) **7.** (c) **8.** (c) **9.** (b) **10.** (c) **11.** (c) **12.** (b) **13.** (a) **14.** (c) **15.** (b)

Exercise-6

ऐसे सवालों को हल करने के लिए बाएँ हाथ की दो-दो अंकों का मन ही मन हल करें तथा अंत में उसे 100 से गुणा करें। तथा दाएँ हाथ की दो-दो अंक को भी मन ही मन हल करके जो भी बचे उसे 100 से गुणा की गई संख्या के साथ जोड़ा/घटा दें।

Ex. 54 32 – 43 21 – 32 10 = ?
[(50 + 4) – (50 – 7) – (40 – 8)] × 100 + 32 – 21 – 10
[50 + 4 – 50 + 7 – 40 + 8] × 100 + 01
= –21 × 100 + 01 = –2100 + 01 = **–2099**

1. 987 – 654 – 321 = _____?
(a) 12 (b) 10 (c) 11 (d) 9

2. 5678 – 2345 – 1234 = _____?
(a) 2100 (b) 2099 (c) 2101 (d) 2102

3. 8765 – 5432 – 3210 = _____?
(a) 124 (b) 125 (c) 123 (d) 126

4. 23456 – 12345 – 6789 = _____?
(a) 4321 (b) 4322 (c) 4323 (d) 4324

5. 9876 – 8765 – 7654 = _____?
(a) –6541 (b) –6542 (c) –6543 (d) –6540

6. 54321 – 43210 – 32109 = _____?
(a) –20997 (b) –20999 (c) –20998 (d) –20996

7. 67890 – 56789 – 45678 = _____?
(a) –34576 (b) –34577 (c) –34575 (d) –34574

8. 9012 – 7890 – 6789 = _____?
(a) –5664 (b) –5666 (c) –5665 (d) –5667

9. 7654 – 6543 – 5432 = _____?
(a) –4321 (b) –4320 (c) –4322 (d) –4323

10. 8765 – 7654 – 6543 = _____?
(a) –5332 (b) –5432 (c) –6432 (d) –5342

11. 9876 – 8765 – 7654 – 6543 = _____?
(a) –13084 (b) –13085 (c) –13086 (d) –13083

12. 23456 – 12345 – 6789 – 4321 = _____?
(a) 1 (b) 8 (c) 0 (d) 9

13. 87654 – 76543 – 65432 – 54321 = _____?
(a) –108642 (b) –108641 (c) –108640 (d) –108639

14. 34567 – 23456 – 12345 – 6789 = _____?
(a) –8033 (b) –8023 (c) –8031 (d) –8030

15. 76543 – 65432 – 54321 – 43210 = _____?
(a) –86418 (b) –86419 (c) –86420 (d) –86417

16. 67890 – 56789 – 45678 – 34567 = _____?
(a) –69143 (b) –69144 (c) –69142 (d) –69141

17. 54321 – 43210 – 32109 – 21098 = _____?
(a) –42096 (b) –42095 (c) –42094 (d) –42093

8. 90123 – 78901 – 67890 – 56789 = _____?
(a) –113455 (b) –113456
(c) –113457 (d) –113454

Answer Key

1. (a) **2.** (b) **3.** (c) **4.** (b) **5.** (c) **6.** (c) **7.** (b)
8. (d) **9.** (a) **10.** (b) **11.** (c) **12.** (a) **13.** (a) **14.** (b)
15. (c) **16.** (b) **17.** (a) **18.** (c)

Exercise-7

दो संख्याओं को पहले 10,100,1000 के गुणात्मक रूप में बनाकर बची हुई संख्या का योग/घटाव प्रश्न अनुसार करें।

Ex. 567 + 456 – 345 – 234
(5 + 4 – 3 – 2) × 100 + (6 + 5 – 4 – 3) × 10 + (7 + 6 – 5 – 4) = 400 + 40 + 4 = **444**

1. 9666 – 335 – 234 – 423 – 97 = _____?
(a) 8345 (b) 8577 (c) 8766 (d) 8345

2. 8245–2352–292–2423–597 = _____?
(a) 3345 (b) 3477 (c) 2581 (d) 2845

3. 7252–2335–3234–423–1197 = _____?
(a) 45 (b) 177 (c) 63 (d) 103

4. 6234 – 2114 – 1234 – 1423 – 997 = _____?
(a) 345 (b) 536 (c) 663 (d) 466

5. 1968 – 126 – 383 – 393 – 523 = _____?
(a) 345 (b) 543 (c) 726 (d) 835

6. 999 – 112 – 544 – 123 – 97 = _____?
(a) 295 (b) 577 (c) 123 (d) 373

7. 8340 – 134 – 913 – 1344 – 3331 = _____?
(a) 2618 (b) 3577 (c) 1766 (d) 2345

8. 4965 – 764 – 1765 – 953 – 1075 = _____?
(a) 1045 (b) 1577 (c) 408 (d) 845

Day-5

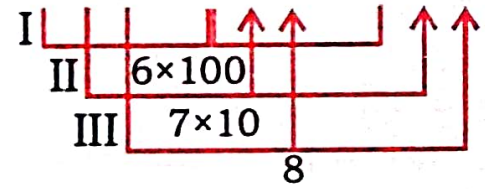
9. 8153 – 2974 – 1066 – 854 – 967 = _____?
   (a) 1345 (b) 2292 (c) 3766 (d) 3345
10. 8754 – 754 – 521 – 431 – 865 – 234 – 239 – 672 = _____?
   (a) 5038 (b) 4577 (c) 5766 (d) 4845
11. 4233 – 1035 + 231 – 423 + 497 + 234 – 342 + 628 – 922 = _____?
   (a) 3342 (b) 3101 (c) 4766 (d) 4345
12. 9476 – 3310 + 3134 – 833 – 257 + 133 – 932 + 442 = _____?
   (a) 7853 (b) 8577 (c) 8766 (d) 7345
13. 397 – 357 – 239 + 836 – 727 – 913 – 385 + 1370 + 923 = _____?
   (a) 845 (b) 877 (c) 905 (d) 395

Answer Key

1. (b) **2.** (c) **3.** (c) **4.** (d) **5.** (b) **6.** (c) **7.** (a)
8. (c) **9.** (b) **10.** (a) **11.** (b) **12.** (a) **13.** (c)

Exercise-8

Ex. 7 8 9 – 6 7 8 + 5 6 7



Sum = 600 + 70 + 8 = **678**

1. 98 + 765 – 432 = _____?
   (a) 421 (b) 431 (c) 434 (d) 411
2. 234 – 123 + 98 = _____?
   (a) 209 (b) 219 (c) 199 (d) 189
3. 567 + 432 – 321 = _____?
   (a) 680 (b) 679 (c) 678 (d) 681

4. 5432 + 4321 – 3210 = _____?

(a) 6544 (b) 6543 (c) 6545 (d) 6546

5. 9876 – 8765 + 7654 – 6543 = _____?

(a) 2222 (b) 2223 (c) 2224 (d) 2225

6. 6543 + 5432 – 4321 – 3210 = _____?

(a) 4445 (b) 4444 (c) 4446 (d) 4447

7. 3456 – 2345 + 1234 – 987 = _____?

(a) 1359 (b) 1358 (c) 1360 (d) 1361

8. 5678 + 4567 – 3456 – 2345 = _____?

(a) 4446 (b) 4445 (c) 4444 (d) 4447

9. 7890 – 6789 + 5678 – 4567 = _____?

(a) 2212 (b) 2213 (c) 2214 (d) 2215

10. 5432 + 4321 – 3210 – 2109 = _____?

(a) 4437 (b) 4435 (c) 4436 (d) 4434

11. 6789 – 5678 + 4567 – 3456 = _____?

(a) 2224 (b) 2223 (c) 2222 (d) 2225

12. 8765 + 7654 – 6543 – 5432 = _____?

(a) 4444 (b) 4445 (c) 4446 (d) 4447

13. 9012 – 7890 + 6789 – 5678 = _____?

(a) 2236 (b) 2234 (c) 2235 (d) 2233

14. 2345 – 1234 + 987 – 876 = _____?

(a) 1202 (b) 1203 (c) 1222 (d) 1205

Answer Key

1. (b) **2.** (a) **3.** (c) **4.** (b) **5.** (a) **6.** (b) **7.** (b)
8. (c) **9.** (a) **10.** (d) **11.** (c) **12.** (a) **13.** (d) **14.** (c)

Exercise-9

1. 8.6 + 67.45 – 345.23 = _____?
   (a) –269.18 (b) –269.14 (c) –269.12 (d) –269.10
2. 234.89 – 12.6 + 9.7 = _____?
   (a) 231.90 (b) 231.99 (c) 232.09 (d) 232.10
3. 65.32 + 432.21 – 98.99 = _____?
   (a) 398.56 (b) 398.55 (c) 398.54 (d) 398.57
4. 78.9 – 8.76 + 654.1 = _____?
   (a) 724.24 (b) 724.26 (c) 724.29 (d) 724.30
5. 432.56 + 3.7 – 210.23 = _____?
   (a) 225.89 (b) 226.03 (c) 226.13 (d) 226.21
6. 987.65 – 87.32 + 6.71 – 654.78 = _____?
   (a) 252.26 (b) 252.28 (c) 252.29 (d) 252.30
7. 654.99 + 5.78 – 43.23 – 321.45 = _____?
   (a) 295.09 (b) 295.10 (c) 295.11 (d) 296.09
8. 987.32 + 8.91 – 76.45 – 65.89 = _____?
   (a) 854.89 (b) 853.89 (c) 854.91 (d) 854.92
9. 345.67 – 9.34 + 1.99 – 98.76 = _____?
   (a) 239.56 (b) 239.57 (c) 239.58 (d) 239.59
10. 56.87 + 4.98 – 987.43 – 3.67 = _____?
    (a) –929.31 (b) –929.27 (c) –929.30 (d) –929.25
11. 789.55 – 6.78 + 23.32 – 45.99 = _____?
    (a) 760.05 (b) 760.10 (c) 760.11 (d) 760.12
12. 543.89 + 32.67 – 1.98 – 210.87 = _____?
    (a) 363.45 (b) 363.50 (c) 363.55 (d) 363.71

13. 678.23 – 7.98 + 56.76 – 45.67 = _____?
(a) 681.34 (b) 681.35 (c) 681.36 (d) 681.37

14. 876.56 + 7.89 – 65.98 – 4.12 = _____?
(a) 814.35 (b) 814.36 (c) 814.37 (d) 814.38

15. 901.99 – 9.88 + 78.76 – 6.65 = _____?
(a) 964.10 (b) 964.12 (c) 964.14 (d) 964.22

16. 234.88 – 1.23 + 9.67 – 87.54 = _____?
(a) 155.56 (b) 155.57 (c) 155.78 (d) 155.59

17. 567.34 + 4.89 – 345.78 – 23.65 = _____?
(a) 202.78 (b) 202.79 (c) 202.80 (d) 202.81

18. 789.76 – 4.98 + 67.32 – 3.67 = _____?
(a) 848.44 (b) 848.43 (c) 848.45 (d) 848.46

19. 543.23 + 21.45 – 321.67 – 3.78 = _____?
(a) 239.21 (b) 239.22 (c) 239.23 (d) 239.24

20. 678.99 – 7.88 + 89.23 – 6.76 = _____?
(a) 753.57 (b) 753.58 (c) 753.59 (d) 753.60

Answer Key

1. (a) **2.** (b) **3.** (c) **4.** (a) **5.** (b) **6.** (a) **7.** (d)
8. (b) **9.** (a) **10.** (d) **11.** (b) **12.** (d) **13.** (a) **14.** (a)
15. (d) **16.** (c) **17.** (c) **18.** (b) **19.** (c) **20.** (b)

04 Multiplication (गुणा) [×]

Multiply two digit number by 11.

Ex. I→ 45 × 11 = ?

I. Add both digits of two digits number 4 + 5 = 9

II. Place this result between both digits **495**

Ex. 2→ 87 × 11 = ?

I. Add both digits of two digit number 8 + 7 = 15

II. Add carry 1 to the left digit when result of step I is greater than 9

8 × 1 = 8

III. Place the result between two digits 957

8 7 × 11 = 957

8 (8 + 7) 7

8 (15) 7

9 5 7

Multiplication by 5

Ex. 1→ 163 × 5 = ?

Step-I Put 0 after given no. = 1630

Step-II Divide step I by 2

$$\frac{1630}{2} = 815$$

Ex. 2→ 287 × 5 = ?

I. 2870 II. $\frac{2870}{2} = 1435$

Ex. 3→ 335 × 5 = ?

I. 3350 II. $\frac{3350}{2} = 1675$

Ex. 4→ 884 × 5 = ?

I. 8840 II. $\frac{8840}{2} = 4420$

Multiplication by 25

Ex. 1→ 182 × 25 = ?

Step-I Put 00 at the end of the given number 18200.

Step-II Divide it by 4

$$\frac{18200}{4} = 4550$$

Ex. 2→ 292 × 25 = ?

Step-I 29200

Step-II $\frac{29200}{4} = 7300$

Ex. 3→ 1787 × 25 = ?

Step-I 178700

Step-II $\frac{178700}{4} = 44675$

Multiplication by 125

Ex. 1→ 187 × 125 = ?

Step-I Put 000 at the end of the number 187000

Step-II Divide by 8

$$\frac{187000}{8} = 23375$$

Ex. 2→ 292 × 125 = ?

Step-I 292000

Step-II $\frac{292000}{8} = 36500$

Ex. 3→ 587 × 125 = ?

Step-I 587000

Step-II $\frac{587000}{8} = 73,375$

Multiplication by 625

Divide by 16 and multiply by 10000

Ex. 48 × 625 = ?

Step 1: 48 ÷ 16 = 3

Step 2: 3 × 10000 = **30000**

Multiplication of no. with difference 01

❖ $12 \times 13 = 12 \times (12 + 1) = 12^2 + 12 = 156$

इस type के सवालों में आपको छोटी संख्या को square करके उस को add करना है।

1. $13 \times 14 = 13^2 + 13 = 182$
2. $14 \times 15 = 14^2 + 14 = 210$
3. $16 \times 17 = 16^2 + 16 = 272$
4. $18 \times 19 = 18^2 + 18 = 342$

Multiply two numbers whose difference is even no.

Ex. 1→ 22 × 36 = ?

Step-I 36 – 22 = 14 (even)

Step-II $\frac{14}{2} = 7$

Step-III 22 + 7 Or 36 – 7 = 29

Step-IV $(29)^2 = 841$

Step-V $841 - 7^2 = 792$

Ex. 2→ 78 × 82 = ?

Step-I 82 – 78 = 4

Step-II $\frac{4}{2} = 2$

Step-III 78 + 2 = 80

Step-IV $80^2 - 2^2 = 6400 - 4 = 6396$

Multiply two digit numbers ending in 1

Ex. 1→ 61 × 41 = ?

I. Multiply left most digits 6 × 4 = 24

II. Add left most digits 6 + 4 = 10

III. Take only right digit from step II and forward the carry to step I

24 (10)

250

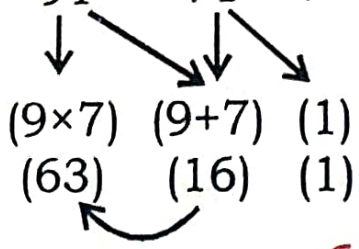
IV. Put 1 at the end **2501**

Ex. 2→ 51 × 31 = ?

(5×3) (5+3) 1

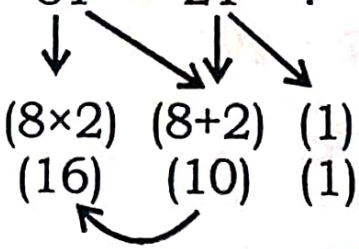
1581

Ex. 3→ 91 × 71 = ?



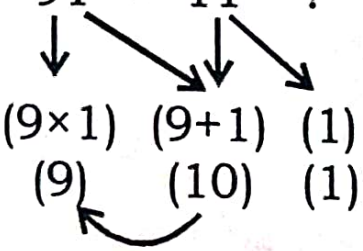
6461

Ex. 4→ 81 × 21 = ?



1701

Ex. 5→ 91 × 11 = ?



1001

Multiply two digit number having same tens digit and one's digit sum is 10.

Ex. 1→ 23 × 27 = **621**

I. Multiply the first digit by the first digit + 1

2 × (2 + 1) = 6

II. Multiply the right most digits (Take two digits if result is single digit put a zero before it)

3 × 7 = 21

III. Place the result of step II next to result of step I

Ex. 2→ 46 × 44 = ?

4×(4+1) (6×4)

2024

Ex. 3→ 71 × 79 = ?

7×(7+1) (1×9)

5609

Unit place same, sum of tens place is 10.

1. 46 × 66 = 3036

(6 + 24) (46, 66) × = 36→3036

2. 72 × 32 = 2304

(2 + 21) (72, 32) = 04→2304

3. 74 × 34 = 2516

(4 + 21) (74, 34) = 16→2516

No. ending with 5 and diff. 10

❖ 25 × 35 = 875

इस Type के सवालों में जो बड़ा No. होता है, उसके Tens place के digit का square करना है और उसमें से 1 minus करना है।

$3^2 - 1 = 8$

Last में always 75 लिख देना है।

1. 35 × 45 = 1575
2. 45 × 55 = 2475
3. 65 × 75 = 4875
4. 85 × 95 = 8075

Multiply numbers between 11 and 19.

Ex. 1→ 14 × 17 = ?

I. Add the larger no. to the rightmost digit of the other number (17 + 4) = 21

II. Multiply step I's result by 10 →210

III. Multiply the rightmost digit of two numbers
4 × 7 = 28

IV. Add step II and III
210 + 28 = 238

Ex. 2→ 14 × 18 = ?

(18+4) × 10 + (4 × 8)

220 + 32 = **252**

Ex. 3→ 11 × 19 = ?

(19+1) × 10 + (9 × 1)

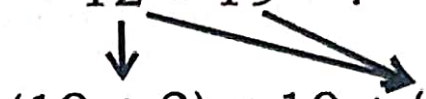
200 + 9 = **209**

Ex. 4→ 12 × 18 = ?

(18+2) × 10 + (8 × 2)

200 + 16 = **216**

Ex. 5→ $12 \times 19 = ?$



$(19 + 2) \times 10 + (9 \times 2)$

$210 + 18 = 228$

Ex. 6→ $13 \times 16 = ?$

$(16 + 3) \times 10 + (6 \times 3)$

$190 + 18 = 208$

Multiply by 0.2

Ex. 1→ $432 \times 0.2 = ?$

I. (Multiply by 2) $432 \times 2 = 864$

II. (Divide by 10)

$$\frac{864}{10} = 86.4$$

2nd method

$432 \times 0.2 = 86.4$

I. (Divide by 5) $\frac{432}{5} = 86.4$

Ex. 2→ $355 \times 0.2 = ?$

I. $\frac{355}{5} = 71$

Ex. 3→ $283 \times 0.2 = ?$

I. $\frac{283}{5} = 56.6$

Multiply by 0.25

Ex. 1→ 355 × 0.25 = ?

I. To multiply the given number by 0.25, divide it by 4

$\therefore \frac{355}{4} = 88.75$

Ex. 2→ 884 × 0.25 = ?

I. $\frac{884}{4} = 221$

Ex. 3→ 1132 × 0.25 = ?

I. $\frac{1132}{4} = 283$

Multiplication by the number whose unit digit is 9

Ex. 1→ 187 × 19 = ?

Step-I 187 × (20 – 1)

Step-II 187 × 20 – 187 × 1

3740 – 187 = **3553**

Ex. 2→ 163 × 9 = ?

Step-I 163 × (10 – 1)

Step-II 1630–163 = **1467**

Ex. 3→ 467 × 99 = ?

Step-I 467 × (100–1)

Step-II 46700 – 467 = **46233**

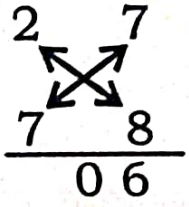
Vedic method of multiply

Ex. 1→ 27 × 78 = ?

I.

2 7
↕
7 8
———
6 ⑤6

II.



16 + 49
= 65 + 5
=⑦ 0

7 8
———
0 6

III.

2 7
↕
7 8
———
21 06

7 × 2 = 14
14 + 7 = 21

Ex. 2→ 21 × 72 = ?



I. 2 × 1 = 2
II. 2 × 2 + 7 × 1 =①1
III. 2 × 7 + 1 = 15

7 2
———
15 12

Ex. 3→ 73 × 65 = ?



I. 5 × 3 =①5
II. (7 × 5 + 6 × 3) + 1=⑤4
III. 7 × 6 + 5 = 47

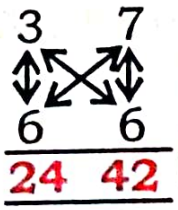
6 5
———
47 45

Ex.4→ 524 × 19 = ?

5 2 4
1 9
———
9 9 5 6

I. 4 × 9 =③6
II. (9 × 2 + 1 × 4) + 3 =②5
III. (9 × 5 + 1 × 2) + 2 =④9
IV. (1 × 5) + 4 = 9

Ex. 5→37 × 66 = ?



I. 7 × 6 = ④2
II. (6 × 3 + 6 × 7) + 4 = ⑥4
III. (6 × 3) + 6 = 24

Multiplication trick near 100

❖ 97 × 98 = (97 – 2) + 06

–3 –2 = **9506**

Step-I पहले दोनों गुणनफल संख्या को 100 से घटा/बढ़ा ले।

Step-II गुणनफल की कोई भी संख्या को Base value मान के उसकी विपरीत संख्या (97–2) को घटा ले।

Step-III बढ़ी/घटी हुई संख्या का गुणनफल [–3 × –2 = 06 (संख्या को हमेशा दो अंकों में लिखना है।)] करके Step-II में जोड़ दे।

1. 103 × 105 = (103 + 5) + 15

–3 +5 = **10815**

2. 94 × 96 = (94 – 4) + 24

–6 –4 = **9024**

Break method of multiplication

Ex. 87 × 88 = 87 × (87 + 1)

= 87^2 × 87 = 7569 + 87 = **7656**

Ex. 35 × 37 = 35 × (35 + 2)

= 35^2 + 70 = 1225 + 70 = **1295**

Ex. 39 × 41 = 39 × (39 + 2) = 39^2 + 78 = **1599**

Ex. $73 \times 71 = 73 \times (73 - 2) = 73^2 - 146 =$ **5183**

Ex. $745 \times 995 = 745 \times (1000 - 5) = 745000 - 3725$
$= 741275$

Ex. $123 \times 945 = (120 + 3) \times 945 = 113400 + 2835$
$= 116235$

Exercise-1

1. $14 \times 7 =$ _____?
2. $23 \times 6 =$ _____?
3. $35 \times 9 =$ _____?
4. $48 \times 5 =$ _____?
5. $62 \times 4 =$ _____?
6. $77 \times 3 =$ _____?
7. $89 \times 8 =$ _____?
8. $56 \times 12 =$ _____?
9. $37 \times 15 =$ _____?
10. $91 \times 14 =$ _____?
11. $125 \times 8 =$ _____?
12. $214 \times 7 =$ _____?
13. $356 \times 9 =$ _____?
14. $482 \times 5 =$ _____?
15. $629 \times 6 =$ _____?
16. $731 \times 4 =$ _____?
17. $842 \times 3 =$ _____?
18. $916 \times 2 =$ _____?
19. $378 \times 15 =$ _____?
20. $543 \times 18 =$ _____?
21. $1254 \times 27 =$ _____?
22. $3892 \times 14 =$ _____?
23. $5741 \times 19 =$ _____?
24. $4785 \times 26 =$ _____?
25. $8123 \times 33 =$ _____?
26. $72.5 \times 8 =$ _____?
27. $63.4 \times 12 =$ _____?
28. $98.3 \times 7.5 =$ _____?
29. $143.6 \times 5.2 =$ _____?
30. $264.9 \times 3.1 =$ _____?

Answer Key

1. 98	**2.** 138	**3.** 315	**4.** 240
5. 248	**6.** 231	**7.** 712	**8.** 672
9. 555	**10.** 1274	**11.** 1000	**12.** 1498
13. 3204	**14.** 2410	**15.** 3774	**16.** 2924
17. 2526	**18.** 1832	**19.** 5670	**20.** 9774
21. 33858	**22.** 54488	**23.** 109079	**24.** 124410
25. 268059	**26.** 580	**27.** 760.8	**28.** 737.25
29. 746.72	**30.** 821.19		

Some Easy Questions

1. $18 \times 0.5 =$ _____?
2. $26 \times 0.5 =$ _____?
3. $55 \times 0.5 =$ _____?
4. $78 \times 0.5 =$ _____?
5. $94 \times 0.5 =$ _____?
6. $250 \times 0.5 =$ _____?
7. $8 \times 2.5 =$ _____?
8. $12 \times 2.5 =$ _____?
9. $20 \times 2.5 =$ _____?
10. $36 \times 2.5 =$ _____?
11. $48 \times 2.5 =$ _____?
12. $50 \times 2.5 =$ _____?
13. $64 \times 2.5 =$ _____?
14. $72 \times 2.5 =$ _____?
15. $100 \times 2.5 =$ _____?
16. $250 \times 2.5 =$ _____?

Answer Key

1. (9)	**2.** (13)	**3.** (27.5)	**4.** (39)
5. (47)	**6.** (125)	**7.** (20)	**8.** (30)
9. (50)	**10.** (90)	**11.** (120)	**12.** (125)
13. (160)	**14.** (180)	**15.** (250)	**16.** (625)

Some Easy Questions

Ex. $38 \times 99 = ?$

Step 1: $38 \times 100 = 3800$

Step 2: $3800 - 38 = 3762$

1. $23 \times 11 =$ _____?
2. $45 \times 11 =$ _____?
3. $78 \times 11 =$ _____?
4. $96 \times 11 =$ _____?
5. $132 \times 11 =$ _____?
6. $205 \times 11 =$ _____?
7. $314 \times 11 =$ _____?
8. $421 \times 11 =$ _____?
9. $509 \times 11 =$ _____?
10. $876 \times 11 =$ _____?
11. $14 \times 99 =$ _____?
12. $26 \times 99 =$ _____?
13. $38 \times 99 =$ _____?
14. $45 \times 99 =$ _____?
15. $52 \times 99 =$ _____?
16. $67 \times 99 =$ _____?
17. $73 \times 99 =$ _____?
18. $81 \times 99 =$ _____?
19. $95 \times 99 =$ _____?
20. $108 \times 99 =$ _____?

Answer Key

1.	(253)	**2.**	(495)	**3.**	(858)	**4.**	(1056)
5.	(1452)	**6.**	(2255)	**7.**	(3454)	**8.**	(4631)
9.	(5599)	**10.**	(9636)	**11.**	(1386)	**12.**	(2574)
13.	(3762)	**14.**	(4455)	**15.**	(5148)	**16.**	(6633)
17.	(7227)	**18.**	(8019)	**19.**	(9405)	**20.**	(10692)

Exercise-2 (1 Digit × 2 Digits)

Ex. 83×7

$= 560 + 3 \times 7 = 581$

1. $98 \times 7 =$ _____?

(a) 692 (b) 686 (c) 855 (d) 696

2. $87 \times 9 =$ _____?

(a) 793 (b) 783 (c) 781 (d) 883

3. $47 \times 3 =$ _____?

(a) 141 (b) 151 (c) 221 (d) 146

4. $67 \times 4 =$ _____?

(a) 258 (b) 268 (c) 255 (d) 218

5. $89 \times 6 =$ _____?

(a) 544 (b) 684 (c) 534 (d) 494

6. $97 \times 8 =$ _____?

(a) 734 (b) 776 (c) 556 (d) 866

7. $83 \times 7 =$ _____?

(a) 581 (b) 681 (c) 751 (d) 691

8. $78 \times 6 =$ _____?

(a) 578 (b) 468 (c) 558 (d) 698

9. $89 \times 5 =$ _____?

(a) 615 (b) 545 (c) 445 (d) 555

10. $7 \times 24 =$ _____?

(a) 148 (b) 168 (c) 178 (d) 188

11. 9 × 35 = _____?
(a) 305 (b) 315 (c) 325 (d) 335

12. 8 × 49 = _____?
(a) 392 (b) 382 (c) 402 (d) 412

13. 6 × 57 = _____?
(a) 332 (b) 322 (c) 342 (d) 362

14. 5 × 86 = _____?
(a) 450 (b) 420 (c) 440 (d) 430

15. 27 × 5 = _____?
(a) 136 (b) 135 (c) 137 (d) 138

16. 46 × 8 = _____?
(a) 368 (b) 370 (c) 372 (d) 368

17. 39 × 7 = _____?
(a) 275 (b) 279 (c) 273 (d) 293

18. 52 × 6 = _____?
(a) 312 (b) 412 (c) 432 (d) 462

19. 85 × 4 = _____?
(a) 360 (b) 390 (c) 440 (d) 340

20. 64 × 9 = _____?
(a) 576 (b) 566 (c) 596 (d) 616

21. 73 × 3 = _____?
(a) 189 (b) 219 (c) 289 (d) 229

22. 91 × 2 = _____?
(a) 162 (b) 232 (c) 182 (d) 252

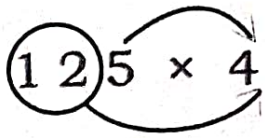
23. 58 × 7 = _____?
(a) 316 (b) 426 (c) 406 (d) 532

24. 33 × 6 = _____?
(a) 218 (b) 198 (c) 258 (d) 188

Answer Key

1. (b) **2.** (b) **3.** (a) **4.** (b) **5.** (c) **6.** (b) **7.** (a)
8. (b) **9.** (c) **10.** (b) **11.** (b) **12.** (a) **13.** (c) **14.** (d)
15. (b) **16.** (a) **17.** (c) **18.** (a) **19.** (d) **20.** (a) **21.** (b)
22. (c) **23.** (c) **24.** (b)

Exercise-3 (1 Digit × 3 Digits)

Ex. 

120 × 4 + 5 × 4 = 480 + 20 = **500**

1. 167 × 7 = _____?
(a) 1299 (b) 1169 (c) 1519 (d) 1099

2. 296 × 5 = _____?
(a) 1480 (b) 1500 (c) 1640 (d) 1140

3. 798 × 8 = _____?
(a) 6924 (b) 6384 (c) 6855 (d) 6694

4. 626 × 9 = _____?
(a) 6124 (b) 5686 (c) 5634 (d) 5694

5. 297 × 6 = _____?
(a) 1602 (b) 1782 (c) 1852 (d) 1692

6. 555 × 7 = _____?
(a) 4695 (b) 4685 (c) 3885 (d) 3105

7. 4 × 123 = _____?
(a) 472 (b) 482 (c) 492 (d) 502

8. 7 × 235 = _____?
(a) 1635 (b) 1645 (c) 1655 (d) 1665

9. 9 × 412 = _____?
(a) 3698 (b) 3708 (c) 3718 (d) 3728

10. 5 × 789 = _____?
(a) 3895 (b) 3945 (c) 3995 (d) 4045

11. 8 × 654 = _____?

(a) 5212 (b) 5222 (c) 5232 (d) 5242

Answer Key

1. (b) **2.** (a) **3.** (b) **4.** (c) **5.** (b) **6.** (c) **7.** (c)
8. (b) **9.** (b) **10.** (b) **11.** (c)

Exercise-4 (2 Digits × 2 Digits)

Ex. 46 × 44 = ?

4×(4+1) (6×4)

2024

1. 88 × 23 = _____?
   (a) 2224 (b) 2154 (c) 2024 (d) 2444
2. 56 × 74 = _____?
   (a) 4394 (b) 4294 (c) 4144 (d) 4444
3. 69 × 48 = _____?
   (a) 3312 (b) 3922 (c) 2922 (d) 3342
4. 97 × 59 = _____?
   (a) 6123 (b) 5723 (c) 5893 (d) 5373
5. 73 × 47 = _____?
   (a) 3641 (b) 3511 (c) 3901 (d) 3431
6. 25 × 68 = _____?
   (a) 1700 (b) 1540 (c) 1900 (d) 1440
7. 95 × 41 = _____?
   (a) 4125 (b) 3895 (c) 3325 (d) 4255
8. 71 × 59 = _____?
   (a) 4189 (b) 4419 (c) 3999 (d) 4109
9. 39 × 61 = _____?
   (a) 2229 (b) 2159 (c) 2379 (d) 2449

10. 57 × 83 = _____?
(a) 4731 (b) 3911 (c) 4241 (d) 4111

11. 29 × 72 = _____?
(a) 2228 (b) 2088 (c) 2828 (d) 2448

12. 68 × 42 = _____?
(a) 2996 (b) 2106 (c) 2026 (d) 2856

13. 87 × 54 = _____?
(a) 4698 (b) 5108 (c) 4908 (d) 5448

14. 65 × 85 = _____?
(a) 6225 (b) 5525 (c) 5925 (d) 5445

15. 56 × 78 = _____?
(a) 4368 (b) 5158 (c) 5028 (d) 4448

16. 23 × 17 = _____?
(a) 381 (b) 371 (c) 391 (d) 401

17. 49 × 51 = _____?
(a) 2399 (b) 2499 (c) 2489 (d) 2469

18. 85 × 75 = _____?
(a) 6475 (b) 6325 (c) 6375 (d) 6425

19. 23 × 45 = _____?
(a) 1015 (b) 1035 (c) 1045 (d) 1025

20. 87 × 56 = _____?
(a) 4872 (b) 4972 (c) 4772 (d) 4672

21. 39 × 82 = _____?
(a) 3198 (b) 3288 (c) 3298 (d) 3388

22. 77 × 66 = _____?
(a) 5042 (b) 5072 (c) 5082 (d) 5052

23. 98 × 76 = _____?
(a) 7448 (b) 7548 (c) 7648 (d) 7748

24. 67 × 89 = _____?

(a) 5937 (b) 5993 (c) 5973 (d) 5963

25. 71 × 93 = _____?

(a) 6593 (b) 6603 (c) 6613 (d) 6623

26. 58 × 79 = _____?

(a) 4592 (b) 4562 (c) 4582 (d) 4602

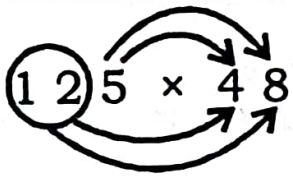
27. 96 × 84 = _____?

(a) 8164 (b) 8064 (c) 8264 (d) 8364

Answer Key

1. (c) **2.** (c) **3.** (a) **4.** (b) **5.** (d) **6.** (a) **7.** (b)
8. (a) **9.** (c) **10.** (a) **11.** (b) **12.** (d) **13.** (a) **14.** (b)
15. (a) **16.** (c) **17.** (b) **18.** (c) **19.** (b) **20.** (a) **21.** (a)
22. (c) **23.** (a) **24.** (d) **25.** (b) **26.** (c) **27.** (b)

Exercise-5 (2 Digits × 3 Digits)

Ex. 

4800 + 960 + 200 + 40 = **6000**

1. 215 × 72 = _____?

(a) 15480 (b) 15520 (c) 15400 (d) 15360

2. 145 × 52 = _____?

(a) 7550 (b) 7440 (c) 7450 (d) 7540

3. 97 × 103 = _____?

(a) 9981 (b) 9891 (c) 9971 (d) 9991

4. 999 × 99 = _____?

(a) 98901 (b) 99901 (c) 99801 (d) 98801

5. 112 × 43 = _____?

(a) 4816 (b) 4826 (c) 4726 (d) 4716

6. 125 × 48 = _____?

(a) 6000 (b) 6050 (c) 6100 (d) 6150

7. 245 × 37 = _____?

(a) 9065 (b) 9155 (c) 9075 (d) 9165

8. 326 × 21 = _____?

(a) 6826 (b) 6836 (c) 6846 (d) 6856

9. 109 × 48 = _____?

(a) 5172 (b) 5232 (c) 5272 (d) 5322

10. 132 × 75 = _____?

(a) 9950 (b) 9950 (c) 9900 (d) 9800

11. 129 × 34 = _____?

(a) 4286 (b) 4386 (c) 4396 (d) 4486

12. 273 × 62 = _____?

(a) 16726 (b) 16926 (c) 16826 (d) 17026

13. 135 × 77 = _____?

(a) 10395 (b) 10495 (c) 10295 (d) 10595

14. 12 × 345 = _____?

(a) 4090 (b) 4100 (c) 4140 (d) 4120

15. 23 × 567 = _____?

(a) 12931 (b) 13041 (c) 13131 (d) 13231

16. 34 × 678 = _____?

(a) 22952 (b) 23052 (c) 23152 (d) 23252

17. 45 × 789 = _____?

(a) 35105 (b) 35205 (c) 35505 (d) 35405

18. 56 × 432 = _____?

(a) 24192 (b) 24292 (c) 24392 (d) 244

Answer Key

1. (a) **2.** (d) **3.** (d) **4.** (a) **5.** (a) **6.** (a) **7**
8. (c) **9.** (b) **10.** (c) **11.** (b) **12.** (b) **13.** (a) **1**
15. (b) **16.** (b) **17.** (c) **18.** (a)

Exercise-6 (2 Digits × 3 Digits)

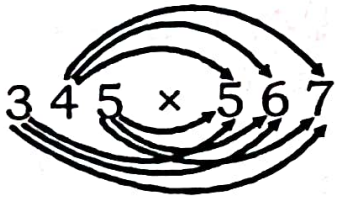
1. 234 × 12 = _____? **2.** 456 × 23 = _
3. 378 × 15 = _____? **4.** 592 × 21 = _
5. 829 × 34 = _____? **6.** 647 × 19 = _
7. 713 × 28 = _____? **8.** 935 × 32 = _
9. 528 × 17 = _____? **10.** 869 × 25 = _

Answer Key

1. (2808) **2.** (10488) **3.** (5670) **4.** (124
5. (28186) **6.** (12293) **7.** (19964) **8.** (299
9. (8976) **10.** (21725)

Exercise-7 (3 Digits × 3 Digits)

Ex. 345 × 567



150000	20000	2500
18000	2400	300
2100	280	35

Sum of all numbers = **195615**

1. 123 × 234 = _____?

(a) 28742 (b) 28746 (c) 28782 (d) 2

2. 345 × 567 = _____?
(a) 195565 (b) 195615 (c) 196065 (d) 196265

3. 678 × 123 = _____?
(a) 83374 (b) 83474 (c) 83394 (d) 83674

4. 456 × 789 = _____?
(a) 359784 (b) 360084 (c) 359184 (d) 360984

5. 234 × 567 = _____?
(a) 131976 (b) 132376 (c) 132176 (d) 132678

6. 890 × 345 = _____?
(a) 306750 (b) 307050 (c) 307350 (d) 307650

7. 321 × 654 = _____?
(a) 209934 (b) 210114 (c) 210414 (d) 210714

8. 876 × 543 = _____?
(a) 474708 (b) 475308 (c) 475668 (d) 476208

9. 765 × 432 = _____?
(a) 329280 (b) 329680 (c) 330080 (d) 330480

10. 654 × 987 = _____?
(a) 644298 (b) 645498 (c) 645798 (d) 646998

11. 234 × 789 = _____?
(a) 184626 (b) 184926 (c) 185226 (d) 185526

12. 567 × 876 = _____?
(a) 497232 (b) 497832 (c) 496692 (d) 498732

13. 345 × 678 = _____?
(a) 233610 (b) 233910 (c) 234210 (d) 234410

14. 123 × 987 = _____?
(a) 121401 (b) 121701 (c) 122001 (d) 122301

15. 678 × 432 = _____?
(a) 292496 (b) 293296 (c) 292896 (d) 293696

16. 543 × 789 = _____?
(a) 428187 (b) 428487 (c) 428787 (d) 428427

17. 321 × 987 = _____?
(a) 316527 (b) 316827 (c) 317127 (d) 317427

18. 876 × 234 = _____?
(a) 204884 (b) 205284 (c) 205584 (d) 204984

19. 765 × 543 = _____?
(a) 415395 (b) 415695 (c) 415995 (d) 416295

20. 654 × 321 = _____?
(a) 219934 (b) 210234 (c) 210534 (d) 209934

Answer Key

1. (c) **2.** (b) **3.** (c) **4.** (a) **5.** (d) **6.** (b) **7.** (a)
8. (c) **9.** (d) **10.** (b) **11.** (a) **12.** (c) **13.** (b) **14.** (a)
15. (c) **16.** (d) **17.** (b) **18.** (d) **19.** (a) **20.** (d)

Exercise-8 (Find the Product)

1. 5 × 12 × 123 = _____?
(a) 7230 (b) 7330 (c) 7380 (d) 7530

2. 7 × 24 × 345 = _____?
(a) 57680 (b) 57780 (c) 57880 (d) 57960

3. 9 × 35 × 210 = _____?
(a) 65850 (b) 65950 (c) 66050 (d) 66150

4. 6 × 57 × 189 = _____?
(a) 64422 (b) 64522 (c) 64638 (d) 64722

5. 8 × 49 × 312 = _____?
(a) 122304 (b) 123368 (c) 124368 (d) 125368

6. 4 × 13 × 123 × 234 = _____?
(a) 1490544 (b) 1493544
(c) 1496664 (d) 1499544

7. $7 \times 23 \times 345 \times 567 =$ _____?
(a) 31752195 (b) 31494015
(c) 31772195 (d) 31782195

8. $9 \times 35 \times 120 \times 789 =$ _____?
(a) 29882700 (b) 29824200
(c) 29902700 (d) 29912700

9. $6 \times 57 \times 189 \times 543 =$ _____?
(a) 35165754 (b) 35175754
(c) 35098434 (d) 35195754

10. $8 \times 49 \times 312 \times 876 =$ _____?
(a) 107138304 (b) 106744864
(c) 106844864 (d) 106944864

11. $12 \times 34 \times 345 =$ _____?
(a) 140760 (b) 141220 (c) 142220 (d) 143220

12. $23 \times 45 \times 678 =$ _____?
(a) 702510 (b) 703510 (c) 701730 (d) 705510

13. $34 \times 56 \times 789 =$ _____?
(a) 1504224 (b) 1502256
(c) 1506224 (d) 1507224

14. $45 \times 67 \times 890 =$ _____?
(a) 2670550 (b) 2671550
(c) 2672550 (d) 2683350

15. $56 \times 78 \times 901 =$ _____?
(a) 3936288 (b) 3935568
(c) 3938288 (d) 3939288

16. $123 \times 234 \times 345 =$ _____?
(a) 9929790 (b) 9945650
(c) 9955650 (d) 9965650

17. $345 \times 456 \times 567 =$ _____?
(a) 89046720 (b) 89200440
(c) 89066720 (d) 89076720

18. 678 × 789 × 890 = _____?
(a) 476231220 (b) 476331220
(c) 476431220 (d) 476098380

19. 456 × 567 × 678 = _____?
(a) 175614768 (b) 175298256
(c) 175814768 (d) 175914768

20. 654 × 765 × 876 = _____?
(a) 438271560 (b) 438392920
(c) 438492920 (d) 438592920

Answer Key

1. (c) **2.** (d) **3.** (d) **4.** (c) **5.** (a) **6.** (c) **7.** (b)
8. (b) **9.** (c) **10.** (a) **11.** (a) **12.** (c) **13.** (b) **14.** (d)
15. (b) **16.** (a) **17.** (b) **18.** (d) **19.** (b) **20.** (a)

Exercise-9 (Find the Product)

1. 5.2 × 12 × 1.23 = _____?
(a) 76.752 (b) 77.888 (c) 78.966 (d) 79.556

2. 7 × 2.4 × 34.5 = _____?
(a) 563.8 (b) 573.6 (c) 579.6 (d) 593.2

3. 9.3 × 3.5 × 21.0 = _____?
(a) 673.05 (b) 683.55 (c) 693.35 (d) 703.25

4. 6.1 × 5.7 × 1.89 = _____?
(a) 64.4223 (b) 65.7153
(c) 66.3989 (d) 67.1874

5. 8 × 4.9 × 3.12 = _____?
(a) 120.643 (b) 122.244
(c) 122.304 (d) 126.921

6. 4.2 × 1.3 × 12.3 × 23.4 = _____?
(a) 1571.4972 (b) 1899.2541
(c) 1909.3544 (d) 1919.4543

7. 7 × 2.3 × 34.5 × 5.67 = _____?
(a) 3158.7915 (b) 3149.4015
(c) 3178.9915 (d) 3189.0915

8. $9 \times 3.5 \times 12.0 \times 78.9 =$ _____?
   (a) 29707.50 (b) 29807.50
   (c) 29824.20 (d) 30007.50
9. $6.4 \times 5.7 \times 1.89 \times 5.43 =$ _____?
   (a) 371.175676 (b) 373.298445
   (c) 375.410222 (d) 374.383296
10. $8 \times 4.9 \times 3.12 \times 8.76 =$ _____?
   (a) 1071.38304 (b) 1083.99441
   (c) 1094.09444 (d) 1104.19443
11. $1.2 \times 3.4 \times 34.5 =$ _____?
   (a) 140.76 (b) 141.22
   (c) 142.22 (d) 143.22
12. $2.3 \times 4.5 \times 67.8 =$ _____?
   (a) 702.51 (b) 703.51
   (c) 701.73 (d) 705.51
13. $3.4 \times 5.6 \times 78.9 =$ _____?
   (a) 1504.224 (b) 1505.224
   (c) 1502.256 (d) 1507.224
14. $4.5 \times 6.7 \times 89.0 =$ _____?
   (a) 2670.55 (b) 2671.55
   (c) 2672.55 (d) 2683.35
15. $5.6 \times 7.8 \times 90.1 =$ _____?
   (a) 3936.288 (b) 3935.568
   (c) 3938.288 (d) 3939.288
16. $12.3 \times 23.4 \times 34.5 =$ _____?
   (a) 9929.790 (b) 9945.650
   (c) 9955.650 (d) 9965.650
17. $34.5 \times 45.6 \times 56.7 =$ _____?
   (a) 89046.72 (b) 89200.44
   (c) 89066.72 (d) 89076.72

18. $67.8 \times 78.9 \times 89.0 =$ _____?
(a) 476231.220 (b) 476331.220
(c) 476431.220 (d) 476098.380

19. $45.6 \times 56.7 \times 67.8 =$ _____?
(a) 175298.256 (b) 175714.256
(c) 175814.256 (d) 175914.256

20. $65.4 \times 76.5 \times 87.6 =$ _____?
(a) 438292.920 (b) 438392.920
(c) 438271.560 (d) 438592.920

Answer Key

1. (a) **2.** (c) **3.** (b) **4.** (b) **5.** (c) **6.** (a) **7.** (b)
8. (c) **9.** (d) **10.** (a) **11.** (a) **12.** (c) **13.** (c) **14.** (d)
15. (b) **16.** (a) **17.** (b) **18.** (d) **19.** (a) **20.** (c)

05 Division (विभाजन/भाग) [÷]



❖ Division with 5

Step 1: Multiply by 2

Step 2: Divide by 10

1. $\frac{24}{5} = \frac{24\times2}{5\times2} = \frac{48}{10} = 4.8$

2. $\frac{48}{5} = \frac{48\times2}{5\times2} = 9.6$

3. $\frac{33}{5} = \frac{33\times2}{5\times2} = 6.6$

4. $\frac{49}{5} = \frac{49\times2}{5\times2} = 9.8$

❖ Division with 25

Step 1: Multiply by 4

Step 2: Divide by 100

1. $\frac{42}{25} = \frac{42\times4}{25\times4} = \frac{168}{100} = 1.68$

2. $\frac{87}{25} = \frac{87\times4}{25\times4} = \frac{348}{100} = 3.48$

3. $\frac{123}{25} = \frac{123\times4}{25\times4} = 4.92$

4. $\frac{576}{25} = \frac{576\times4}{25\times4} = 23.04$

❖ Division with 125

Step 1: Multiply by 8

Step 2: Divide by 1000

1. $\frac{13}{125} = \frac{13\times8}{125\times8} = \frac{104}{1000} = 0.104$

2. $\frac{29}{125} = \frac{29\times8}{125\times8} = \frac{232}{1000} = 0.232$

3. $\frac{34}{125} = \frac{34\times8}{125\times8} = 0.272$

4. $\frac{173}{125} = \frac{173\times8}{125\times8} = 1.384$

❖ Division with 625

Ex. $\frac{951}{625} = ?$

Sol. $\frac{951\times16}{625\times16} = \frac{15216}{10000} = 1.5216$

1. $\frac{351}{625}$ = _____?

2. $\frac{726}{625}$ = _____?

3. $\frac{2117}{625}$ = _____?

4. $\frac{3697}{625}$ = _____?

5. $\frac{7245}{625}$ = _____?

Answer Key

1. 0.5616 **2.** 1.1616 **3.** 3.3872
4. 5.9152 **5.** 11.5920

Some Easy Questions-1

1. 9 unit = 81, 15 unit = _____?
2. 0.8 unit = 12, 15 unit = _____?
3. 0.81 unit = 324, 50 unit = _____?
4. 1.69 unit = 676, 100 unit = _____?
5. 28 unit = 1.4, 300 unit = _____?
6. 5 unit = 1/40, 10 unit = _____?
7. 1/4 unit = 12, 2/3 unit = _____?
8. 1/5 unit = 0.40, 100 unit = _____?

Answer Key

1. (135) **2.** (225) **3.** (20000) **4.** (40000)
5. (15) **6.** (1/20) **7.** (32) **8.** (200)

Some Easy Questions-2

1. 25 ÷ 4 = _____?
2. 37 ÷ 5 = _____?
3. 48 ÷ 7 = _____?
4. 92 ÷ 8 = _____?
5. 55 ÷ 9 = _____?
6. 63 ÷ 4 = _____?
7. 77 ÷ 6 = _____?
8. 89 ÷ 7 = _____?
9. 95 ÷ 3 = _____?
10. 104 ÷ 9 = _____?
11. 120 ÷ 11 = _____?
12. 135 ÷ 8 = _____?
13. 146 ÷ 7 = _____?
14. 157 ÷ 6 = _____?

Answer Key

1. (6.25) **2.** (7.4) **3.** (6.86) **4.** (11.5)
5. (6.11) **6.** (15.75) **7.** (12.83) **8.** (12.71)
9. (31.67) **10.** (11.56) **11.** (10.91) **12.** (16.88)
13. (20.86) **14.** (26.17)

Find the result.

1. 12.5 ÷ 5 = _____?
2. 24.6 ÷ 6 = _____?
3. 35.4 ÷ 3 = _____?
4. 47.2 ÷ 8 = _____?
5. 56.1 ÷ 7 = _____?
6. 63.5 ÷ 5 = _____?

Day-7

7. 78.9 ÷ 9 = _____?
8. 82.4 ÷ 4 = _____?
9. 99.3 ÷ 3 = _____?
10. 105.6 ÷ 6 = _____?
11. 112.8 ÷ 7 = _____?
12. 125.5 ÷ 5 = _____?
13. 137.4 ÷ 6 = _____?
14. 149.6 ÷ 8 = _____?
15. 157.2 ÷ 9 = _____?
16. 168.9 ÷ 3 = _____?
17. 176.4 ÷ 4 = _____?
18. 189.5 ÷ 5 = _____?
19. 193.8 ÷ 6 = _____?
20. 205.2 ÷ 7 = _____?

Answer Key

1. (2.5)	**2.** (4.1)	**3.** (11.8)	**4.** (5.9)
5. (8.01)	**6.** (12.7)	**7.** (8.77)	**8.** (20.6)
9. (33.1)	**10.** (17.6)	**11.** (16.11)	**12.** (25.1)
13. (22.9)	**14.** (18.7)	**15.** (17.47)	**16.** (56.3)
17. (44.1)	**18.** (37.9)	**19.** (32.3)	**20.** (29.31)

Break method of Division

Ex. 768 ÷ 12 = ?

$$\frac{(720+48)}{12} = 60 + 4 = 64$$

Ex. 1984 ÷ 16 = ?

$$\frac{1600+384}{16} = 100 + 24 = 124$$

Ex. 3456 ÷ 24 = ?

$$\frac{2400+960+96}{24} = 100 + 40 + 4 = 144$$

Ex. 7856.24 ÷ 24 = ?

$$\frac{7200+600+56+0.24}{24}$$

$$= 300 + 25 + 2.33 + 0.01 = 327.34$$

Ex. $16572.84 \div 48 = ?$

$$\frac{14400+1920+252+0.84}{48}$$

$= 300 + 40 + 5.25 + 0.0175 = \mathbf{345.2675}$

1. $84 \div 7 =$ _____?
2. $96 \div 8 =$ _____?
3. $125 \div 5 =$ _____?
4. $168 \div 12 =$ _____?
5. $245 \div 7 =$ _____?
6. $432 \div 9 =$ _____?
7. $525 \div 15 =$ _____?
8. $816 \div 24 =$ _____?
9. $999 \div 37 =$ _____?
10. $784 \div 16 =$ _____?
11. $1024 \div 32 =$ _____?
12. $2048 \div 64 =$ _____?
13. $3575 \div 25 =$ _____?
14. $6480 \div 81 =$ _____?
15. $7290 \div 90 =$ _____?
16. $8142 \div 18 =$ _____?
17. $9216 \div 48 =$ _____?
18. $10890 \div 15 =$ _____?
19. $12784 \div 56 =$ _____?
20. $15360 \div 32 =$ _____?
21. $25.2 \div 4.2 =$ _____?
22. $84.6 \div 3.6 =$ _____?
23. $156.4 \div 2.8 =$ _____?
24. $378.9 \div 4.5 =$ _____?
25. $1250.5 \div 5.5 =$ _____?
26. $6428 \div 7.2 =$ _____?
27. $9846 \div 26 =$ _____?
28. $17892 \div 8.4 =$ _____?
29. $24576 \div 16 =$ _____?
30. $36450 \div 9.75 =$ _____?

Answer Key

1. 12 **2.** 12 **3.** 25 **4.** 14
5. 35 **6.** 48 **7.** 35 **8.** 34
9. 27 **10.** 49 **11.** 32 **12.** 32
13. 143 **14.** 80 **15.** 81 **16.** 452.33
17. 192 **18.** 726 **19.** 228.29 **20.** 480
21. 6 **22.** 23.5 **23.** 55.86 **24.** 84.2
25. 227.36 **26.** 892.78 **27.** 378.69 **28.** 2130.0
29. 1536 **30.** 3738.46

Exercise-1 (Division by 1 Digit)

1. 143 ÷ 4 = _____?
   (a) 33.65 (b) 35.75 (c) 37.95 (d) 38.98
2. 117 ÷ 4 = _____?
   (a) 29.95 (b) 29.25 (c) 25.45 (d) 23.85
3. 301 ÷ 7 = _____?
   (a) 42 (b) 43 (c) 45 (d) 51
4. 322 ÷ 7 = _____?
   (a) 47 (b) 41 (c) 55 (d) 46
5. 120 ÷ 8 = _____?
   (a) 10 (b) 11 (c) 15 (d) 13
6. 103 ÷ 8 = _____?
   (a) 10.875 (b) 11.975 (c) 12.875 (d) 13.235
7. 97 ÷ 9 = _____?
   (a) 10.77 (b) 11.33 (c) 15.77 (d) 13.33
8. 95 ÷ 7 = _____?
   (a) 10.47 (b) 11.74 (c) 15.47 (d) 13.57
9. 375 ÷ 5 = _____?
   (a) 65 (b) 70 (c) 75 (d) 80
10. 648 ÷ 6 = _____?
    (a) 106 (b) 108 (c) 110 (d) 112
11. 812 ÷ 4 = _____?
    (a) 202 (b) 203 (c) 204 (d) 205
12. 99 ÷ 0.1 = _____?
    (a) 980 (b) 1099 (c) 990 (d) 1090
13. 199 ÷ 0.5 = _____?
    (a) 398 (b) 399 (c) 385 (d) 395

Answer Key

1. (b) **2.** (b) **3.** (b) **4.** (d) **5.** (c) **6.** (c) **7.** (a)
8. (d) **9.** (c) **10.** (b) **11.** (b) **12.** (c) **13.** (a)

Exercise–2 (Division by 2 Digits)

1. 15 ÷ 10 = _____?
   (a) 1.2 (b) 1.4 (c) 1.5 (d) 1.6
2. 111 ÷ 11 = _____?
   (a) 10.09 (b) 11.01 (c) 12.09 (d) 13.01
3. 112 ÷ 12 = _____?
   (a) 10.33 (b) 11.33 (c) 9.33 (d) 13.33
4. 936 ÷ 12 = _____?
   (a) 76 (b) 78 (c) 80 (d) 82
5. 555 ÷ 15 = _____?
   (a) 35 (b) 37 (c) 39 (d) 41
6. 725 ÷ 25 = _____?
   (a) 25 (b) 27 (c) 29 (d) 31
7. 950 ÷ 19 = _____?
   (a) 48 (b) 50 (c) 52 (d) 54
8. 735 ÷ 21 = _____?
   (a) 33 (b) 34 (c) 35 (d) 36
9. 984 ÷ 12 = _____?
   (a) 80 (b) 82 (c) 84 (d) 86
10. 888 ÷ 24 = _____?
    (a) 36 (b) 37 (c) 38 (d) 39
11. 1,008 ÷ 16 = _____?
    (a) 60 (b) 62 (c) 63 (d) 66
12. 714 ÷ 14 = _____?
    (a) 48 (b) 50 (c) 52 (d) 51
13. 999 ÷ 27 = _____?
    (a) 35 (b) 36 (c) 37 (d) 38
14. 1,050 ÷ 25 = _____?
    (a) 40 (b) 42 (c) 44 (d) 46
15. 846 ÷ 18 = _____?
    (a) 46 (b) 47 (c) 48 (d) 49

16. 918 ÷ 17 = _____?
(a) 52 (b) 54 (c) 56 (d) 58

17. 1,144 ÷ 22 = _____?
(a) 50 (b) 51 (c) 52 (d) 53

18. 357 ÷ 35 = _____?
(a) 10.2 (b) 11.2 (c) 15.2 (d) 13.2

19. 2491 ÷ 47 = _____?
(a) 63 (b) 61 (c) 55 (d) 53

20. 2208 ÷ 23 = _____?
(a) 98 (b) 96 (c) 86 (d) 106

21. 621 ÷ 27 = _____?
(a) 20 (b) 23 (c) 25 (d) 21

22. 1494 ÷ 83 = _____?
(a) 15 (b) 19 (c) 18 (d) 12

23. 1178 ÷ 31 = _____?
(a) 40 (b) 44 (c) 38 (d) 48

24. 688 ÷ 86 = _____?
(a) 10 (b) 11 (c) 8 (d) 9

25. 693 ÷ 99 = _____?
(a) 7* (b) 8 (c) 9 (d) 10

26. 444 ÷ 37 = _____?
(a) 10 (b) 11 (c) 12 (d) 13

27. 496 ÷ 16 = _____?
(a) 30 (b) 31 (c) 45 (d) 33

28. 688 ÷ 43 = _____?
(a) 14 (b) 16 (c) 15 (d) 13

29. 672 ÷ 16 = _____?
(a) 40 (b) 41 (c) 42 (d) 43

30. 448 ÷ 25 = _____?
(a) 14.67 (b) 15.62 (c) 17.92 (d) 18.82

31. 735 ÷ 75 = _____?
(a) 10.1 (b) 11.8 (c) 9.8 (d) 11.1

32. 58 ÷ 11 = _____?
(a) 4.68 (b) 7.23 (c) 5.27 (d) 6.63

33. 106 ÷ 11 = _____?
(a) 10.26 (b) 11.47 (c) 9.63 (d) 10.85

34. 156 ÷ 36 = _____?
(a) 5.33 (b) 4.33 (c) 4.85 (d) 4.80

35. 286 ÷ 18 = _____?
(a) 18 (b) 16.18 (c) 15.88 (d) 17.98

36. 355355 ÷ 91 = _____?
(a) 3901 (b) 3905 (c) 3906 (d) 3910

37. 999999 ÷ 99 = _____?
(a) 10100 (b) 10101 (c) 11001 (d) 10111

38. 9801 ÷ 99 = _____?
(a) 98 (b) 69 (c) 99 (d) 101

Answer Key

1. (c) **2.** (a) **3.** (c) **4.** (b) **5.** (b) **6.** (c) **7.** (b)
8. (c) **9.** (b) **10.** (b) **11.** (c) **12.** (d) **13.** (c) **14.** (b)
15. (b) **16.** (b) **17.** (c) **18.** (a) **19.** (d) **20.** (b) **21.** (b)
22. (c) **23.** (c) **24.** (c) **25.** (a) **26.** (c) **27.** (b) **28.** (b)
29. (c) **30.** (c) **31.** (c) **32.** (c) **33.** (c) **34.** (b) **35.** (c)
36. (b) **37.** (b) **38.** (c)

Exercise–3 (Division by 3 Digits)

1. 3192 ÷ 152 = _____?
(a) 20 (b) 21 (c) 25 (d) 23

2. 9999 ÷ 101 = _____?
(a) 99 (b) 189 (c) 101 (d) 109

3. 2424 ÷ 101 = _____?
(a) 26 (b) 24 (c) 34 (d) 27

4. 924 ÷ 132 = _____?
(a) 5 (b) 6 (c) 7 (d) 8

5. 1,008 ÷ 126 = _____?
(a) 6 (b) 7 (c) 8 (d) 9

6. 1,296 ÷ 144 = _____?
(a) 5 (b) 7 (c) 9 (d) 11

7. 1,512 ÷ 189 = _____?
(a) 5 (b) 8 (c) 9 (d) 15

8. 1,296 ÷ 216 = _____?
(a) 7 (b) 6 c) 8 (d) 12

9. 1,938 ÷ 237 = _____?
(a) 7.17 (b) 8.17 (c) 9.27 (d) 10.27

10. 2,115 ÷ 235 = _____?
(a) 8 (b) 9 (c) 10 (d) 11

11. 2,112 ÷ 264 = _____?
(a) 8 (b) 20 (c) 18 d) 7

12. 2,016 ÷ 288 = _____?
(a) 7 (b) 5 (c)12 (d) 10

13. 3,465 ÷ 315 = _____?
(a) 5 (b) 7 (c) 9 (d) 11

14. 3,168 ÷ 352 = _____?
(a) 8 (b) 9 (c) 10 (d) 11

15. 1,925 ÷ 385 = _____?
(a) 9 b) 5 (c) 13 (d) 17

16. 3,780 ÷ 420 = _____?
(a) 3 (b) 9 (c) 12 (d) 14

17. 5,472 ÷ 456 = _____?
(a) 14 (b) 16 (c) 10 (d) 12

18. 4,455 ÷ 495 = _____?
a) 4 b) 9 c) 7 (d) 5

19. 3,150 ÷ 525 = _____?
(a) 8 (b) 6 (c) 10 (d) 11

20. 5,0778 ÷ 558 = _____?
(a) 71 (b) 61 (c) 91 (d) 81

21. 5,328 ÷ 592 = _____?
(a) 8 (b) 9 (c) 10 (d) 11

22. 4,410 ÷ 630 = _____?
(a) 11 (b) 13 (c) 7 (d) 9

23. 6,048 ÷ 672 = _____?
(a) 5 (b) 9 (c) 3 (d) 7

Answer Key

1. (b) **2.** (a) **3.** (b) **4.** (c) **5.** (c) **6.** (c) **7.** (b)
8. (b) **9.** (b) **10.** (b) **11.** (a) **12.** (a) **13.** (d) **14.** (b)
15. (b) **16.** (b) **17.** (d) **18.** (b) **19.** (b) **20.** (c) **21.** (b)
22. (c) **23.** (b)

Exercise–4 (Division by 4 Digits)

1. 10,818 ÷ 1,202 = _____?
(a) 8 (b) 9 (c) 10 (d) 11

2. 15,840 ÷ 1,320 = _____?
(a) 11 (b) 12 (c) 13 (d) 14

3. 24,570 ÷ 1,365 = _____?
(a) 16 (b) 17 (c) 18 (d) 19

4. 30,240 ÷ 1,440 = _____?
(a) 19 (b) 20 (c) 21 (d) 22

5. 53,568 ÷ 1,488 = _____?
(a) 26 (b) 27 (c) 28 (d) 36

6. 49,344 ÷ 1,542 = _____?
(a) 31 (b) 32 (c) 33 (d) 34

7. 53,856 ÷ 1,584 = _____?
(a) 34 (b) 35 (c) 36 (d) 37

8. 60,384 ÷ 1,632 = _____?
(a) 36 (b) 37 (c) 38 (d) 39

9. 72,450 ÷ 1,725 = _____?
(a) 40 (b) 41 (c) 42 (d) 43

10. 81,450 ÷ 1,810 = _____?
(a) 43 (b) 44 (c) 45 (d) 46

11. 90,720 ÷ 1,890 = _____?
(a) 46 (b) 47 (c) 48 (d) 49

12. 96,768 ÷ 2,016 = _____?
(a) 47 (b) 48 (c) 49 (d) 50

13. 104,400 ÷ 2,088 = _____?
(a) 49 (b) 50 (c) 51 (d) 52

14. 114,750 ÷ 2,250 = _____?
(a) 50 (b) 51 (c) 52 (d) 53

15. 126,144 ÷ 2,336 = _____?
(a) 51 (b) 52 (c) 53 (d) 54

16. 135,850 ÷ 2,470 = _____?
(a) 52 (b) 53 (c) 54 (d) 55

17. 148,680 ÷ 2,655 = _____?
(a) 55 (b) 56 (c) 57 (d) 58

18. 162,450 ÷ 2,850 = _____?
(a) 55 (b) 56 (c) 57 (d) 58

19. 165,880 ÷ 2,860 = _____?
(a) 55 (b) 56 (c) 57 (d) 58

20. 178,200 ÷ 3,300 = _____?
(a) 56 (b) 57 (c) 58 (d) 54

21. 999999 ÷ 1001 = _____?
(a) 989 (b) 899 (c) 999 (d) 909

22. 256256 ÷ 1001 = _____?
(a) 236 (b) 256 (c) 246 (d) 266

23. 344344 ÷ 1001 = _____?
(a) 366 (b) 346 (c) 344 (d) 354

Answer Key

1. (b) 2. (b) 3. (c) 4. (c) 5. (d) 6. (b) 7. (a)
8. (b) 9. (c) 10. (c) 11. (c) 12. (b) 13. (b) 14. (b)
15. (d) 16. (d) 17. (b) 18. (c) 19. (d) 20. (d) 21. (c)
22. (b) 23. (c)

Exercise–5 (Mix)

Ex. $8 \div 2 \div 2 =$ _____?

$= \frac{8}{2} \div 2 = 4 \div 2 = 2$

1. $9 \div 3 \div 12 =$ _____?
   (a) 0.125 (b) 0.15 (c) 0.25 (d) 0.3
2. $6 \div 2 \div 20 =$ _____?
   (a) 0.12 (b) 0.13 (c) 0.14 (d) 0.15
3. $8 \div 4 \div 16 =$ _____?
   (a) 0.1 (b) 0.125 (c) 0.15 (d) 0.175
4. $7 \div 7 \div 14 =$ _____?
   (a) 0.055 (b) 0.011 (c) 0.071 (d) 0.022
5. $12 \div 6 \div 2 =$ _____?
   (a) 1 (b) 2 (c) 3 (d) 4
6. $24 \div 4 \div 3 =$ _____?
   (a) 1 (b) 2 (c) 3 (d) 4
7. $36 \div 6 \div 2 =$ _____?
   (a) 2 (b) 3 (c) 4 (d) 5
8. $45 \div 9 \div 5 =$ _____?
   (a) 1 (b) 2 (c) 3 (d) 4
9. $50 \div 5 \div 10 =$ _____?
   (a) 0.5 (b) 1 (c) 1.5 (d) 2
10. $20 \div 10 \div 5 =$ _____?
    (a) 0.2 (b) 0.3 (c) 0.4 (d) 0.5
11. $30 \div 15 \div 3 =$ _____?
    (a) 0.55 (b) 0.11 (c) 1.55 (d) 0.66
12. $40 \div 20 \div 4 =$ _____?
    (a) 0.5 (b) 0.4 (c) 0.1 (d) 0.2

13. $50 \div 25 \div 5 =$ _____?

(a) 0.5 (b) 0.4 (c) 0.7 (d) 0.1

14. $60 \div 30 \div 2 =$ _____?

(a) 0.5 (b) 1 (c) 1.5 (d) 2

Answer Key

1. (c) **2.** (d) **3.** (b) **4.** (c) **5.** (a) **6.** (b) **7.** (b)
8. (a) **9.** (b) **10.** (c) **11.** (d) **12.** (a) **13.** (b) **14.** (b)

Exercise–6

Ex. $9 \div 1.5 \div 3 =$ _____?

$= \frac{9}{1.5} \div 3 = 6 \div 3 = 2$

1. $8 \div 2.5 \div 2 =$ _____?

(a) 1.1 (b) 1.2 (c) 1.3 (d) 1.6

2. $6 \div 0.5 \div 3 =$ _____?

(a) 2 (b) 3 (c) 4 (d) 5

3. $7.2 \div 1.2 \div 2 =$ _____?

(a) 1 (b) 2 (c) 3 (d) 4

4. $10 \div 2 \div 2.5 =$ _____?

(a) 1 (b) 2 (c) 3 (d) 4

5. $8 \div 2.4 \div 4 =$ _____?

(a) 0.6 (b) 0.83 (c) 1 (d) 1.2

6. $7.5 \div 5 \div 2 =$ _____?

(a) 0.55 (b) 0.65 (c) 0.75 (d) 0.85

7. $5.4 \div 1.8 \div 3 =$ _____?

(a) 0.8 (b) 1 (c) 1.2 (d) 1.4

8. $12 \div 3.6 \div 4 =$ _____?

(a) 0.6 (b) 0.83 (c) 1 (d) 1.2

9. $55 \div 5 \div 2.5 =$ _____?

(a) 2.2 (b) 3.3 (c) 4.4 (d) 5.5

Answer Key

1. (d) **2.** (c) **3.** (c) **4.** (b) **5.** (b) **6.** (c) **7.** (b) **8.** (b) **9.** (c)

Exercise–7

Ex. $(2.5 \times 4) \div 2 =$ _____?

$= 10 \div 2 = 5$

1. $(8 \times 1.2) \div 4 =$ _____?

(a) 2.2 (b) 2.4 (c) 2.6 (d) 2.8

2. $(9 \times 0.5) \div 3 =$ _____?

(a) 0.5 (b) 1 (c) 1.5 (d) 2

3. $(3.6 \times 2) \div 1.2 =$ _____?

(a) 4 (b) 5 (c) 6 (d) 7

4. $(10 \times 2.5) \div 5 =$ _____?

(a) 3 (b) 4 (c) 6 (d) 5

5. $(4.5 \times 2.5) \div 1.5 =$ _____?

(a) 7.5 (b) 6 (c) 8.5 (d) 8

6. $(3.6 \times 5) \div 2 =$ _____?

(a) 6 (b) 7 (c) 8 (d) 9

7. $(7.2 \times 1.5) \div 3 =$ _____?

(a) 2.6 (b) 3.2 (c) 3.6 (d) 4

8. $(8 \times 1.8) \div 4 =$ _____?

(a) 3.2 (b) 3.6 (c) 4 (d) 4.4

9. $(5.5 \times 4) \div 2.2 =$ _____?

(a) 8.5 (b) 9 (c) 9.5 (d) 10

10. $(6 \times 2.5 \times 4) \div 5 =$ _____?

(a) 10 (b) 12 (c) 14 (d) 15

11. $(8.4 \times 1.2 \times 3) \div 2 =$ _____?

(a) 13.42 (b) 14.82 (c) 15.12 (d) 15.62

12. $(5.5 \times 2 \times 3.2) \div 4 =$ _____?

(a) 7.5 (b) 8.2 (c) 8.8 (d) 9.1

13. $(10 \times 2.5 \times 1.8) \div 9 =$ _____?

(a) 4.5 (b) 5 (c) 5.2 (d) 5.6

14. $(12 \times 1.4 \times 2.5) \div 7 =$ _____?

(a) 5.8 (b) 6 (c) 6.4 (d) 6.8

15. $(2.4 \times 3.5) \div 2 =$ _____?

(a) 3.5 (b) 4 (c) 4.2 (d) 4.5

16. $(5.2 \times 1.5 \times 2) \div 3 =$ _____?

(a) 4.8 (b) 5.2 (c) 5.6 (d) 6

17. $(6.4 \times 2.3) \div 1.6 =$ _____?

(a) 8.8 (b) 9.2 (c) 9.5 (d) 9.8

18. $(7 \times 2.4 \times 3) \div 4.2 =$ _____?

(a) 10.8 (b) 11.2 (c) 11.5 (d) 12

19. $(9 \times 1.6 \times 2.5) \div 6 =$ _____?

(a) 5.8 (b) 6 (c) 6.2 (d) 6.5

Answer Key

1. (b) **2.** (c) **3.** (c) **4.** (d) **5.** (a) **6.** (d) **7.** (b) **8.** (b) **9.** (d) **10.** (b) **11.** (c) **12.** (c) **13.** (b) **14.** (c) **15.** (c) **16.** (b) **17.** (b) **18.** (d) **19.** (b)

Exercise-8

Ex. $(2.5 \times 48) \div 2 =$ _____?

$$= \frac{25}{10} \times \frac{48}{2} = 5 \times 12 = 60$$

1. $(1.2 \times 36) \div 4 =$ _____?
   (a) 9 (b) 10.2 (c) 10.8 (d) 11.5
2. $(9 \times 0.5 \times 1.2) \div 3 =$ _____?
   (a) 1.5 (b) 1.8 (c) 2 (d) 2.2
3. $(125 \times 2.4) \div 1.2 =$ _____?
   (a) 240 (b) 250 (c) 260 (d) 270
4. $(1200 \times 1.5) \div 5 =$ _____?
   (a) 320 (b) 340 (c) 360 (d) 380
5. $(45 \times 2.5) \div 1.5 =$ _____?
   (a) 60 (b) 65 (c) 70 (d) 75
6. $(360 \times 5.2) \div 2 =$ _____?
   (a) 936 (b) 920 (c) 900 (d) 950
7. $(720 \times 1.5) \div 3 =$ _____?
   (a) 350 (b) 360 (c) 370 (d) 380
8. $(240 \times 1.8) \div 4 =$ _____?
   (a) 98 (b) 102 (c) 108 (d) 112
9. $(5500 \times 4) \div 2.2 =$ _____?
   (a) 9850 (b) 9950 (c) 10000 (d) 10200
10. $(600 \times 2.5 \times 4) \div 5 =$ _____?
    (a) 1200 (b) 1300 (c) 1220 (d) 1250
11. $(840 \times 1.2 \times 3) \div 2 =$ _____?
    (a) 1490 (b) 1500 (c) 1512 (d) 1520
12. $(550 \times 2 \times 3.2) \div 4 =$ _____?
    (a) 850 (b) 880 (c) 900 (d) 920

13. (1000 × 2.5 × 1.8) ÷ 9 = _____?
(a) 480 (b) 500 (c) 520 (d) 540

14. (12000 × 1.4 × 2.5) ÷ 7 = _____?
(a) 5800 (b) 6000 (c) 6200 (d) 6400

15. (240 × 3.5) ÷ 2 = _____?
(a) 415 (b) 422 (c) 420 (d) 430

16. (520 × 1.5 × 2) ÷ 3 = _____?
(a) 510 (b) 540 (c) 530 (d) 520

17. (640 × 2.3) ÷ 1.6 = _____?
(a) 888 (b) 980 (c) 950 (d) 920

18. (750 × 2.4 × 3) ÷ 9 = _____?
(a) 600 (b) 700 (c) 800 (d) 900

Answer Key

1. (c) **2.** (b) **3.** (b) **4.** (c) **5.** (d) **6.** (a) **7.**
8. (c) **9.** (c) **10.** (a) **11.** (c) **12.** (b) **13.** (b) **14**
15. (c) **16.** (d) **17.** (d) **18.** (a)

Exercise–9

Ex. (2.5 × 12) ÷ 5 = _____?
(2.5 × 12) ÷ 5 = ?
= 30 ÷ 5 = 6

1. (8 × 1.2 × 15) ÷ 6 = _____?
(a) 18 (b) 20 (c) 22 (d) 24

2. (345 × 0.5) ÷ 5 = _____?
(a) 23 (b) 34.5 (c) 45 (d) 78

3. (2.4 × 16) ÷ 1.2 = _____?
(a) 28 (b) 30 (c) 32 (d) 34

4. (120 × 2.5) ÷ 10 = _____?
(a) 25 (b) 30 (c) 35 (d) 40

5. $(45.6 \times 2.5) \div 1.5 =$ _____?
(a) 65 (b) 70 (c) 76 (d) 80

6. $(360 \times 5) \div 1.2 =$ _____?
(a) 1400 (b) 1450 (c) 1500 (d) 1550

7. $(7.2 \times 15) \div 3 =$ _____?
(a) 26 (b) 36 (c) 30 (d) 32

8. $(860 \times 2.8) \div 4 =$ _____?
(a) 500 (b) 550 (c) 600 (d) 602

9. $(60 \times 25 \times 4) \div 5 =$ _____?
(a) 1100 (b) 1150 (c) 1200 (d) 1250

10. $(8400 \times 1.2 \times 3) \div 200 =$ _____?
(a) 140.1 (b) 144.1 (c) 151.2 (d) 152.2

11. $(550 \times 2 \times 3.2) \div 4 =$ _____?
(a) 750 (b) 800 (c) 880 (d) 900

12. $(1000 \times 2.5 \times 1.8) \div 90 =$ _____?
(a) 40 (b) 45 (c) 50 (d) 55

13. $(12000 \times 1.4 \times 2.5) \div 70 =$ _____?
(a) 600 (b) 520 (c) 540 (d) 560

14. $(240 \times 3.5) \div 2 =$ _____?
(a) 410 (b) 420 (c) 430 (d) 440

15. $(5200 \times 1.5 \times 2) \div 30 =$ _____?
(a) 500 (b) 520 (c) 540 (d) 560

16. $(6400 \times 2.3) \div 16 =$ _____?
(a) 880 (b) 900 (c) 920 (d) 940

Answer Key

1. (d) **2.** (b) **3.** (c) **4.** (b) **5.** (c) **6.** (c) **7.** (b)
8. (d) **9.** (c) **10.** (c) **11.** (c) **12.** (c) **13.** (a) **14.** (b)
15. (b) **16.** (c)

06 Decimal (दशमलव) [.]



दशमलव की संख्याओं का योग/घटाव करते समय दशमलव से आगे तथा बा
की संख्याओं का स्थान ध्यान रखें।

Ex. 4217.57 + 211.79

$\Rightarrow$ 4217.57
+211.79
4429.36

Ex. 63.7 + 9.4

इस Type के सवालों में हमें पहले Integer value को Add कर
है। उसके बाद Decimal value को Add करना है।

I $\rightarrow$ 63 + 9 = 72

II$\rightarrow$ 0.7 + 0.4 = 1.1

III$\rightarrow$ 63.7 + 9.4 = 73.1

Ex. 89.7 + 6.2 = 95 + 0.9 = **95.9**

Ex. 76.3 + 23.6 = 99 + 0.9 = **99.9**

Ex. 89.56 + 41.35 = 130 + 0.91 = **130.91**

Ex. 127.89 + 23.45 = 150 + 1.34 = **151.34**

Type–1

1. 3.25 + 4.89 = _____?
2. 12.75 + 9.63 = ___
3. 48.91 + 23.45 = _____?
4. 139.48 + 256.32 = _____?
5. 1785.45 + 2937.12 = _____?
6. 6.28 + 3.14 = _____?
7. 81.47 + 12.58 = ___

8. 205.36 + 98.74 = _____?
9. 52.85 + 47.15 = _____?
10. 724.99 + 275.01 = _____?
11. 25.47 – 13.82 = _____?
12. 78.92 – 43.58 = _____?
13. 143.86 – 98.47 = _____?
14. 573.45 – 386.78 = _____?
15. 9824.37 – 4567.23 = _____?
16. 100.5 – 75.25 = _____?
17. 92.8 – 47.6 = _____?
18. 500.75 – 238.49 = _____?
19. 304.67 – 198.92 = _____?
20. 789.99 – 512.34 = _____?
21. 6.5 × 4.2 = _____?
22. 12.8 × 3.6 = _____?
23. 15.75 × 2.4 = _____?
24. 8.91 × 7.5 = _____?
25. 23.47 × 9.1 = _____?
26. 25.2 ÷ 4.2 = _____?
27. 84.6 ÷ 3.6 = _____?
28. 156.4 ÷ 2.8 = _____?
29. 378.9 ÷ 4.5 = _____?
30. 1250.5 ÷ 5.5 = _____?

Answer Key

1. 8.14
2. 22.38
3. 72.36
4. 395.80
5. 4722.57
6. 9.42
7. 94.05
8. 304.10
9. 100.00
10. 1000.00
11. 11.65
12. 35.34
13. 45.39
14. 186.67
15. 5257.14
16. 25.25
17. 45.2
18. 262.26
19. 105.75
20. 277.65
21. 27.3
22. 46.08
23. 37.8
24. 66.825
25. 213.577
26. 6.0
27. 23.5
28. 55.86
29. 84.2
30. 227.36

Type–2

Ex. 12.32 ÷ 4 = _____?

Sol. 12.32 ÷ 4 = ?

$$= \frac{12.32}{4} = 3.08$$

1. 52.56 ÷ 5 = _____?
   (a) 10.51 (b) 11.41 (c) 12.71 (d) 12.08
2. 95.95 ÷ 4 = _____?
   (a) 23.90 (b) 23.08 (c) 23.99 (d) 33.88
3. 172.6 ÷ 33 = _____?
   (a) 5.33 (b) 5.23 (c) 6.23 (d) 4.53
4. 121 ÷ 52 = _____?
   (a) 4.30 (b) 4.25 (c) 5.24 (d) 5.18
5. 133.9 ÷ 15 = _____?
   (a) 15.39 (b) 16.08 (c) 18.29 (d) 10.78
6. 65.9 ÷ 18 = _____?
   (a) 3.8 (b) 3.08 (c) 3.66 (d) 3.88
7. 111.11 ÷ 19 = _____?
   (a) 5.84 (b) 5.98 (c) 4.24 (d) 4.48
8. 56.89 ÷ 6.6 = _____?
   (a) 8.33 (b) 8.61 (c) 8.24 (d) 7.89
9. 586.95 ÷ 18.9 = _____?
   (a) 31.05 (b) 30.08 (c) 32.24 (d) 33.88
10. 279.63 ÷ 83.5 = _____?
    (a) 3.96 (b) 3.78 (c) 3.34 (d) 3.26
11. 526.95 ÷ 16.8 = _____?
    (a) 31.36 (b) 30.06 (c) 35.96 (d) 32.16
12. 97.23 ÷ 12.17 = _____?
    (a) 6.88 (b) 8.28 (c) 7.98 (d) 7.88

13. 9.732 ÷ 2.23 = _____?
(a) 4.36 (b) 5.39 (c) 5.24 (d) 4.58

14. 98.29 ÷ 27.37 = _____?
(a) 3.85 (b) 3.59 (c) 3.26 (d) 3.81

Answer Key

1. (a) **2.** (c) **3.** (b) **4.** (b) **5.** (a) **6.** (c) **7.** (a)
8. (b) **9.** (a) **10.** (c) **11.** (a) **12.** (c) **13.** (a) **14.** (b)

Type-3

Ex. 61.9 × 5 = _____?
= 309.5

1. 256.93 × 12 = _____?
(a) 3080.33 (b) 3083.76
(c) 3088.58 (d) 3083.16

2. 117.95 × 19 = _____?
(a) 2241.05 (b) 2204.73
(c) 2009.51 (d) 3109.40

3. 98.92 × 23 = _____?
(a) 2909.35 (b) 3197.57
(c) 2275.16 (d) 2906.75

4. 96.56 × 34.5 = _____?
(a) 3222.43 (b) 3331.32
(c) 3223.48 (d) 2332.45

5. 72.6 × 13.59 = _____?
(a) 980.27 (b) 986.63
(c) 1005.57 (d) 1100.49

6. 447.39 × 19 = _____?
(a) 9100.36 (b) 8990.58
(c) 8500.41 (d) 8300.45

7. 59.26 × 63.29 = _____?
(a) 3750.56 (b) 3809.59
(c) 3305.59 (d) 3340.45

8. 579.9 × 13 = _____?
   (a) 7900.30 (b) 7889.50
   (c) 7772.70 (d) 7538.7

9. 187.43 × 47 = _____?
   (a) 8838.39 (b) 8809.21
   (c) 8923.58 (d) 8694.45

10. 88.26 × 23.8 = _____?
   (a) 2100.58 (b) 2286.59
   (c) 2305.56 (d) 2300.95

11. 98.19 × 39 = _____?
   (a) 3709.37 (b) 3928.59
   (c) 3829.41 (d) 3899.45

12. 93.88 × 29.2 = _____?
   (a) 2945.38 (b) 2856.37
   (c) 2803.59 (d) 2741.29

13. 59.73 × 23.47 = _____?
   (a) 1800.39 (b) 1401.86
   (c) 1305.53 (d) 1600.45

14. 249.83 × 28.8 = _____?
   (a) 7195.10 (b) 7809.54
   (c) 7748.59 (d) 8174.43

Answer Key

1. (d) **2.** (a) **3.** (c) **4.** (b) **5.** (b) **6.** (c) **7.** (a)
8. (d) **9.** (b) **10.** (a) **11.** (c) **12.** (d) **13.** (b) **14.** (a)

Type–4

Ex. 98.26 – 56.59 = _____?

⇒
$$\begin{array}{r} 98.26 \\ -56.59 \\ \hline 41.67 \end{array}$$

1. 59.036 – 26.685 = _____?
   (a) 30.831 (b) 31.671 (c) 32.351 (d) 32.823

2. 70.26 – 17.63 = _____?
(a) 52.63 (b) 51.63 (c) 55.83 (d) 52.83

3. 1209.68 – 455.93 = _____?
(a) 740.83 (b) 741.63 (c) 745.87 (d) 753.75

4. 999.19 – 589.65 = _____?
(a) 409.54 (b) 410.67 (c) 405.85 (d) 402.87

5. 1256 – 125.63 = _____?
(a) 1130.37 (b) 1128.72
(c) 1357.08 (d) 1234.85

6. 85.95 – 8.236 = _____?
(a) 79.832 (b) 78.672 (c) 77.714 (d) 72.822

7. 536.56 – 43.86 + 23.95 – 455.95 = _____?
(a) 68.83 (b) 61.67 (c) 65.87 (d) 60.70

8. 256.364 – 59.11 + 94.023 – 109.26 = _____?
(a) 180.832 (b) 182.017
(c) 145.872 (d) 192.823

9. 23.62 – 586.95 – 59.62 + 256.95 + 903.49 = _____?
(a) 549.83 (b) 537.49 (c) 545.87 (d) 542.82

10. 737 – 56.03 + 245.97 – 547.08 + 197.63 + 25.25 = _____?
(a) 590.83 (b) 610.67 (c) 602.74 (d) 612.82

11. 10.97 + 239 + 29.089 – 187.22 + 63.87 – 26.91 = _____?
(a) 180.836 (b) 241.674
(c) 145.873 (d) 128.799

12. 591.26 – 67.95 + 15.98 – 29.54 + 3.26 – 9.38 – 123.45 = _____?
(a) 375.63 (b) 380.18 (c) 345.87 (d) 349.82

Answer Key

1. (c) **2.** (a) **3.** (d) **4.** (a) **5.** (a) **6.** (c)
7. (d) **8.** (b) **9.** (b) **10.** (c) **11.** (d) **12.** (b)

Type–5

Ex. $(2.5 + 3.2 - 1.1) \times 2 =$ _____?

$= (5.7 - 1.1) \times 2$

$= 4.6 \times 2 = 9.2$

1. $(8.6 - 2.4) \times (4 \div 2) =$ _____?

(a) 6.2 (b) 12.4 (c) 9.4 (d) 10.2

2. $(15.5 + 12.4 - 7.9) \div 2 =$ _____?

(a) 9.5 (b) 10 (c) 10.5 (d) 11

3. $(3.6 \times 2.5) - (4.2 \div 2) =$ _____?

(a) 7.2 (b) 8.3 (c) 9.4 (d) 6.9

4. $(12.8 + 7.2 - 3.5) \times 1.5 =$ _____?

(a) 20.55 (b) 24.23 (c) 30.45 (d) 24.75

5. $(125.5 + 24.3 - 10.8) \div 3 =$ _____?

(a) 42.5 (b) 45.6 (c) 46.3 (d) 47.9

6. $(4.5 \times 3.2 - 2.8) \div 2 =$ _____?

(a) 4.9 (b) 5.1 (c) 5.8 (d) 6.3

7. $(14.2 + 10.5 - 4.7) \times 2.5 =$ _____?

(a) 50 (b) 48.5 (c) 51.2 (d) 52.5

8. $(65.4 - 23.2 + 12.8) \div 4 =$ _____?

(a) 13.75 (b) 14.2 (c) 15.5 (d) 16

9. $(9.6 \times 4.5) - (10.2 \div 3) =$ _____?

(a) 38.8 (b) 40.2 (c) 41.5 (d) 39.8

10. $(256.8 + 342.2 - 125.5) \div 2 =$ _____?

(a) 234.55 (b) 236.75 (c) 237.11 (d) 238.55

11. $(999.9 - 250.5 + 127.8) \div 5 =$ _____?

(a) 175.44 (b) 177.55 (c) 180.11 (d) 182.33

12. (123.6 × 2.4 – 45.2) ÷ 3 = _____?
(a) 67.81 (b) 69.51 (c) 70.21 (d) 83.81

13. (476.2 – 112.8 + 45.9) × 1.5 ÷ 3 = _____?
(a) 209.65 (b) 204.65 (c) 212.85 (d) 215.35

14. (18.4 + 12.6 – 5.2) × 2.1 = _____?
(a) 52.18 (b) 54.18 (c) 56.18 (d) 57.18

15. (68.9 – 24.5 + 14.2) ÷ 4.1 = _____?
(a) 14.29 (b) 15.39 (c) 16.19 (d) 17.09

16. (10.8 × 5.4) – (12.6 ÷ 3.2) = _____?
(a) 48.28 (b) 49.58 (c) 54.38 (d) 52.18

17. (512.7 – 245.6 + 126.3) ÷ 3.8 = _____?
(a) 97.8 (b) 99.3 (c) 100.7 (d) 103.5

18. (780.4 × 2.3) – (155.8 ÷ 4.2) = _____?
(a) 1793.82 (b) 1757.82
(c) 1834.82 (d) 1852.82

19. (998.5 – 258.2 + 134.7) ÷ 4.5 = _____?
(a) 195.3 (b) 194.4 (c) 199.6 (d) 201.8

20. (134.6 × 3.5 – 46.2) ÷ 2.8 = _____?
(a) 112.45 (b) 115.75
(c) 118.25 (d) 151.75

21. (92.5 × 1.8) – (45.3 ÷ 3.5) = _____?
(a) 145.85 (b) 147.95 (c) 150.35 (d) 153.55

Answer Key

1. (b) **2.** (b) **3.** (d) **4.** (d) **5.** (c) **6.** (c) **7.** (a)
8. (a) **9.** (d) **10.** (b) **11.** (a) **12.** (d) **13.** (b) **14.** (b)
15. (a) **16.** (c) **17.** (d) **18.** (b) **19.** (b) **20.** (d) **21.** (d)

Type–6

Ex. 4.5 + 0.75 = _____?

$\Rightarrow$ 4.50
+0.75
5.25

1. 0.9 + 0.09 + 0.09 = _____?
(a) 0.999 (b) 0.909 (c) 0.99 (d) 1.08

2. 12.34 + 5.678 = _____?
(a) 18.018 (b) 18.008 (c) 17.89 (d) 18.10

3. 100.5 – 99.05 = _____?
(a) 1.40 (b) 1.50 (c) 1.45 (d) 1.55

4. 7.008 + 5.02 = _____?
(a) 12.028 (b) 11.028 (c) 12.08 (d) 12.018

5. 0.75 + 1.5 + 2.25 = _____?
(a) 4.50 (b) 4.75 (c) 5.00 (d) 4.25

6. 9.99 – 1.111 = _____?
(a) 8.88 (b) 8.879 (c) 8.889 (d) 4.25

7. 45.6 + 7.89 = _____?
(a) 53.49 (b) 53.89 (c) 53.50 (d) 54.00

8. 0.123 + 0.456 + 0.789 = _____?
(a) 1.468 (b) 1.368 (c) 1.568 (d) 1.486

9. 0.5 + 0.05 + 0.005 = _____?
(a) 0.505 (b) 0.550 (c) 0.555 (d) 0.150

10. 67.89 – 23.456 = ?
(a) 44.434 (b) 44.443 (c) 44.533 (d) 44.533

1. 5.678 + 4.321 = _____?

(a) 9.99 (b) 9.999 (c) 10.00 (d) 9.89

2. 0.999 + 0.001 = _____?

(a) 1.000 (b) 0.999 (c) 1.001 (d) 1.010

3. 0.25 + 0.125 + 0.0625 = _____?

(a) 0.4375 (b) 0.425 (c) 0.375 (d) 0.5

4. 99.99 + 0.11 = _____?

(a) 100.00 (b) 100.10 (c) 100.11 (d) 101.00

5. 15.89 – 7.56 = _____?

(a) 8.33 (b) 8.53 (c) 8.43 (d) 8.63

6. 0.007 + 0.07 + 0.7 = _____?

(a) 0.777 (b) 0.787 (c) 0.770 (d) 0.7777

7. 34.5 + 0.45 = _____?

(a) 34.95 (b) 34.90 (c) 35.00 (d) 34.85

8. 0.85 – 0.325 = _____?

(a) 0.525 (b) 0.625 (c) 0.575 (d) 0.475

9. 78.92 – 6.345 = _____?

(a) 72.575 (b) 72.585 (c) 72.475 (d) 72.485

Answer Key

1. (d) **2.** (a) **3.** (c) **4.** (a) **5.** (a) **6.** (b) **7.** (a)
8. (b) **9.** (c) **10.** (a) **11.** (b) **12.** (a) **13.** (a) **14.** (b)
15. (a) **16.** (a) **17.** (a) **18.** (a) **19.** (a)

07 BODMAS

Exercise-1

1. $8 + 2 \times 5 =$ _____?
2. $(12 + 8) \div 4 =$ _____?
3. $36 \div 6 \times 3 =$ _____?
4. $50 - 3 \times 6 =$ _____?
5. $(24 \div 6) + 10 =$ _____?
6. $45 - (18 \div 3) =$ _____?
7. $(8 + 2) \times 3 =$ _____?
8. $100 \div (4 + 6) =$ _____?
9. $(15 - 5) \times 2 =$ _____?
10. $(40 \div 5) + (3 \times 4) =$ _____?
11. $60 \div (8 - 2) + 7 =$ _____?
12. $(72 \div 9) \times (4 + 2) =$ _____?
13. $144 \div (12 + 4) \times 2 =$ _____?
14. $(90 - 30) \div (15 \div 5) =$ _____?
15. $(6 \times 5) + (8 \div 2) =$ _____?
16. $(49 \div 7) \times (12 \div 4) =$ _____?
17. $(80 \div 4) - (6 \times 3) =$ _____?
18. $100 - (20 \div 5 \times 2) =$ _____?
19. $(5 + 3) \times (12 \div 4) =$ _____?
20. $144 \div (9 \times 2) + 10 =$ _____?
21. $(18 \div 3) + (5 \times 4) - 6 =$ _____?
22. $(200 \div 10) \times (8 - 3) =$ _____?
23. $(99 - 9) \div (10 - 1) =$ _____?
24. $[(10 + 5) \times 3] \div 5 =$ _____?
25. $(45 \div 5) \times (8 \div 2) - 3 =$ _____?
26. $(36 \div 6) \times (8 \div 4) + 10 =$ _____?
27. $[(20 + 10) \div 2] \times 5 =$ _____?

28. $(12 \times 3) \div (9 \div 3) + 4 =$ _____?
29. $[(120 \div 4) + (2 \times 5)] \div 2 =$ _____?
30. $(64 \div 8) + (10 \times 3) - 5 =$ _____?

Answer Key

1. 18	**2.** 5	**3.** 18	**4.** 32
5. 14	**6.** 39	**7.** 30	**8.** 10
9. 20	**10.** 20	**11.** 17	**12.** 48
13. 18	**14.** 20	**15.** 34	**16.** 21
17. 2	**18.** 92	**19.** 24	**20.** 18
21. 20	**22.** 100	**23.** 10	**24.** 9
25. 33	**26.** 22	**27.** 75	**28.**16
29. 20	**30.** 33		

Exercise-2 BODMAS with Variables

1. $5x + 3 = 18$, $x =$ _____?
2. $4y - 7 = 25$, $y =$ _____?
3. $5x - 3 = 2x + 9$, $x =$ _____?
4. $(b + 5)/3 = 7$, $b =$ _____?
5. $8m + 2 = 18$, $m =$ _____?
6. $3(n - 4) = 6$, $n =$ _____?
7. $7p - 2 = 3p + 14$, $p =$ _____?
8. $6q + 5 = 35$, $q =$ _____?
9. $4(x - 2) = 12$, $x =$ _____?
10. $7y + 6 = 2(y + 8)$, $y =$ _____?
11. $2p + 3(4 - p) = 10$, $p =$ _____?
12. $q/3 + 5 = 8$, $q =$ _____?
13. $3(x - 1) + 2 = 2x + 7$, $x =$ _____?
14. $4(y - 3) + 2 = 3y$, $y =$ _____?
15. $5(x + 2) - 3 = 4x + 10$, $x =$ _____?
16. $4x - (3x - 7) = 10$, $x =$ _____?
17. $2(x + 3) + (6x - 22) = 16$, $x =$ _____?

18. $(y + 2)/3 = 5$, $y =$ _____?
19. $5(x - 1) - 2(x + 3) = 1$, $x =$ _____?
20. $7(a + 3) = 42$, $a =$ _____?
21. $3(2y - 1) = 5(y + 1)$, $y =$ _____?
22. $2(a - 4) + 3(2a + 1) = 35$, $a =$ _____?
23. $x/2 + 5 = 9$, $x =$ _____?
24. $3(x + 2) - 2(x - 1) = 12$, $x =$ _____?
25. $4y - 3(y + 2) = 5$, $y =$ _____?
26. $5(x - 2) + 4(x + 1) = 3x + 18$, $x =$ _____?
27. $2(a + 5) - 3(a - 2) = 12$, $a =$ _____?
28. $3x + 2y = 12$, $x + y = 5$, $x, y =$ ____, ____?
29. $2x + 3y = 14$, $x - y = 2$, $x, y =$ ____, ____?
30. $4a + 3b = 18$, $a - b = 1$, $a, b =$ ____, ____?

Answer Key

1. 3 **2.** 8 **3.** 4 **4.** 16
5. 2 **6.** 6 **7.** 4 **8.** 5
9. 5 **10.** 2 **11.** 2 **12.** 9
13. 8 **14.** 10 **15.** 3 **16.** 3
17. 4 **18.** 13 **19.** 4 **20.** 3
21. 8 **22.** 5 **23.** 8 **24.** 4
25. 11 **26.** 4 **27.** 4
28. $x = 2$, $y = 3$ **29.** $x = 4$, $y = 2$
30. $a = 3$, $b = 2$

Exercise–3

Ex. $(5 + 12 - 7) \times 3 =$ _____?
Sol. $(5 + 12 - 7) \times 3 = 10 \times 3 = 30$

1. $(18 \times 2) - (16 \div 4) =$ _____?
(a) 30 (b) 32 (c) 34 (d) 36

2. $(50 + 25 - 15) \div 5 =$ _____?
(a) 10 (b) 12 (c) 15 (d) 20

3. $(9 \times 4) - (16 \div 2) =$ _____?
(a) 18 (b) 20 (c) 22 (d) 28

4. $(30 + 20 - 10) \times 2 =$ _____?
(a) 60 (b) 70 (c) 80 (d) 90

5. $(120 + 45 - 30) \div 3 =$ _____?
(a) 40 (b) 45 (c) 50 (d) 55

6. $(6 \times 8 - 10) \div 2 =$ _____?
(a) 19 (b) 20 (c) 21 (d) 22

7. $(80 + 40 - 20) \times 2 =$ _____?
(a) 180 (b) 200 (c) 220 (d) 240

8. $(150 - 50 + 20) \div 4 =$ _____?
(a) 25 (b) 30 (c) 35 (d) 40

9. $(14 \times 5) - (30 \div 3) =$ _____?
(a) 50 (b) 55 (c) 60 (d) 65

10. $(250 + 320 - 100) \div 5 =$ _____?
(a) 90 (b) 94 (c) 96 (d) 98

11. $(600 - 250 + 120) \div 10 =$ _____?
(a) 45 (b) 47 (c) 49 (d) 50

12. $(700 \times 2) - (100 \div 5) =$ _____?
(a) 1380 (b) 1400 (c) 1420 (d) 1450

13. $(320 + 400 - 150) \times 2 =$ _____?
(a) 1120 (b) 1140 (c) 1160 (d) 1180

14. $(900 - 300 + 150) \div 6 =$ _____?
(a) 125 (b) 130 (c) 135 (d) 140

15. $(135 \times 3 - 60) \div 5 =$ _____?
(a) 69 (b) 72 (c) 75 (d) 78

16. $(8 + 15 - 7) \times 4 \div 2 =$ _____?
(a) 28 (b) 30 (c) 32 (d) 34

17. $(92 \times 2) - (40 \div 4) =$ _____?
(a) 176 (b) 180 (c) 174 (d) 188

18. (480 – 150 + 50) × 2 ÷ 4 = _____?
(a) 180 (b) 190 (c) 200 (d) 210

19. (999 × 1) – (500 ÷ 5) = _____?
(a) 899 (b) 909 (c) 919 (d) 929

Answer Key

1. (b) **2.** (b) **3.** (d) **4.** (c) **5.** (b) **6.** (a) **7.**
8. (b) **9.** (c) **10.** (b) **11.** (b) **12.** (a) **13.** (b) **14.**
15. (a) **16.** (c) **17.** (c) **18.** (b) **19.** (a)

Exercise-4

1. (8 + 6 – 3) × 2 ÷ 2 = _____?
(a) 12 (b) 11 (c) 24 (d) 26

2. (12 × 2) – (8 ÷ 4) = _____?
(a) 20 (b) 22 (c) 24 (d) 26

3. (14 + 9 – 5) ÷ 2 = _____?
(a) 9 (b) 8 (c) 10 (d) 11

4. (7 × 3) – (15 ÷ 5) = _____?
(a) 18 (b) 19 (c) 20 (d) 21

5. (9 + 6 – 3) × 5 ÷ 4 = _____?
(a) 15 (b) 16 (c) 17 (d) 18

6. (7.5 + 2.1 – 1.1) ÷ 2 = _____?
(a) 4.52 (b) 4.35 (c) 4.45 (d) 4.25

7. (4.5 × 3 – 6) ÷ 3 = _____?
(a) 2.5 (b) 3.6 (c) 3.7 (d) 3.8

8. (6 + 2.5 – 1.5) × 2 ÷ 7 = _____?
(a) 4 (b) 5 (c) 6 (d) 2

9. (12 – 3.5 + 2.5) ÷ 4 = _____?
(a) 2.75 (b) 3.75 (c) 4.75 (d) 5.75

10. (5.5 × 4) – (12 ÷ 4) = _____?
(a) 18 (b) 19 (c) 20 (d) 21

11. (18 + 6 – 9) ÷ 3 = _____?
(a) 5 (b) 6 (c) 7 (d) 8

2. $(25 - 8 + 10) \div 5 =$ _____?
(a) 4.5 (b) 6.5 (c) 7.4 (d) 5.4

3. $(10 \times 4) - (6 \div 3) =$ _____?
(a) 38 (b) 39 (c) 40 (d) 41

4. $(20 + 10 - 5) \times 3 \div 5 =$ _____?
(a) 12 (b) 13 (c) 14 (d) 15

5. $(30 - 12 + 9) \div 6 =$ _____?
(a) 2.5 (b) 3.5 (c) 4.5 (d) 5.5

6. $(6 \times 3 - 3) \div 2 =$ _____?
(a) 6.5 (b) 7.5 (c) 8.5 (d) 9.5

7. $(3 + 5 - 2) \times 2 \div 4 =$ _____?
(a) 2 (b) 3 (c) 4 (d) 5

8. $(8 \times 4) - (12 \div 4) =$ _____?
(a) 30 (b) 31 (c) 29 (d) 33

9. $(50 - 15 + 10) \times 2 \div 5 =$ _____?
(a) 18 (b) 19 (c) 20 (d) 21

10. $(20 \times 3) - (10 \div 2) =$ _____?
(a) 55 (b) 56 (c) 57 (d) 58

Answer Key

1. (b) **2.** (b) **3.** (a) **4.** (a) **5.** (a) **6.** (d) **7.** (a)
8. (d) **9.** (a) **10.** (b) **11.** (a) **12.** (d) **13.** (a) **14.** (d)
15. (c) **16.** (b) **17.** (b) **18.** (c) **19.** (a) **20.** (a)

Exercise-5

1. $(14 + 26 - 12) \times 3 =$ _____?
(a) 84 (b) 86 (c) 88 (d) 90

2. $(24 \times 5) - (18 \div 3) =$ _____?
(a) 114 (b) 115 (c) 120 (d) 125

3. $(98 + 36 - 14) \div 4 =$ _____?
(a) 28 (b) 30 (c) 32 (d) 34

4. $(17 \times 6) - (42 \div 2) =$ _____?
(a) 54 (b) 60 (c) 66 (d) 81

5. $(45 + 38 - 19) \times 4 =$ _____?
(a) 252 (b) 256 (c) 260 (d) 264

6. $(210 + 75 - 45) \div 5 =$ _____?
(a) 44 (b) 46 (c) 48 (d) 50

7. $(9 \times 7 - 21) \div 3 =$ _____?
(a) 14 (b) 15 (c) 16 (d) 17

8. $(125 + 65 - 35) \times 2 =$ _____?
(a) 310 (b) 320 (c) 330 (d) 340

9. $(240 - 85 + 35) \div 5 =$ _____?
(a) 36 (b) 38 (c) 40 (d) 42

10. $(28 \times 6) - (45 \div 5) =$ _____?
(a) 155 (b) 160 (c) 159 (d) 170

11. $(350 + 420 - 230) \div 6 =$ _____?
(a) 90 (b) 95 (c) 100 (d) 105

12. $(720 - 290 + 180) \div 10 =$ _____?
(a) 55 (b) 60 (c) 61 (d) 70

13. $(600 \times 3) - (180 \div 6) =$ _____?
(a) 1770 (b) 1780 (c) 1800 (d) 1820

14. $(540 + 390 - 210) \times 1.5 =$ _____?
(a) 1020 (b) 1050 (c) 1080 (d) 1110

15. $(900 - 350 + 175) \div 5 =$ _____?
(a) 105 (b) 110 (c) 115 (d) 145

16. $(260 \times 2 - 110) \div 5 =$ _____?
(a) 80 (b) 84 (c) 88 (d) 82

17. $(12 + 35 - 19) \times 5 \div 2 =$ _____?
(a) 52 (b) 70 (c) 58 (d) 61

3. (130 × 3) – (55 ÷ 5) = _____?
(a) 379 (b) 380 (c) 385 (d) 390

9. (780 – 260 + 130) × 2 ÷ 5 = _____?
(a) 260 (b) 270 (c) 280 (d) 290

0. (999 × 2) – (600 ÷ 3) = _____?
(a) 1833 (b) 1866 (c) 1798 (d) 1932

Answer Key

(a) **2.** (a) **3.** (b) **4.** (d) **5.** (b) **6.** (c) **7.** (a)
(a) **9.** (b) **10.** (c) **11.** (a) **12.** (c) **13.** (a) **14.** (c)
5. (d) **16.** (d) **17.** (b) **18.** (a) **19.** (a) **20.** (c)

Exercise-6

. (72 + 34 – 19) × 5 ÷ 2 + 20% of 100 = _____?
(a) 237.5 (b) 238.5 (c) 340.5 (d) 342.5

. (198 × 3) – (275 ÷ 5) + 15% of 400 = _____?
(a) 544 (b) 550 (c) 599 (d) 562

. (450 + 320 – 145) ÷ 5 + 10% of 150 = _____?
(a) 140 (b) 150 (c) 155 (d) 160

. (85 × 7) – (315 ÷ 9) + 25% of 300 = _____?
(a) 620 (b) 625 (c) 630 (d) 635

. (99 + 56 – 24) × 8 ÷ 4 + 12% of 200 = _____?
(a) 276 (b) 280 (c) 284 (d) 286

. (560 + 275 – 185) ÷ 5 + 40% of 250 = _____?
(a) 230 (b) 185 (c) 190 (d) 195

. (45 × 12 – 85) ÷ 5 + 30% of 90 = _____?
(a) 118 (b) 115 (c) 120 (d) 125

. (625 + 185 – 120) × 2 ÷ 5 + 10% of 800 = _____?
(a) 420 (b) 356 (c) 440 (d) 450

9. (980 – 345 + 215) ÷ 17 + 20% of 250 = ____?
(a) 150 (b) 100 (c) 160 (d) 165

10. (56 × 9) – (110 ÷ 5) + 18% of 400 = ____?
(a) 554 (b) 580 (c) 590 (d) 600

11. (750 + 980 – 410) ÷ 6 + 25% of 240 = ____?
(a) 250 (b) 260 (c) 270 (d) 280

12. (1280 – 560 + 250) ÷ 10 + 15% of 600 = ____?
(a) 160 (b) 170 (c) 187 (d) 190

13. (720 × 4) – (250 ÷ 5) + 35% of 500 = ____?
(a) 3005 (b) 3050 (c) 3100 (d) 3150

14. (630 + 490 – 270) × 2 ÷ 4 + 40% of 200 = ____?
(a) 490 (b) 505 (c) 510 (d) 520

15. (1020 – 450 + 225) ÷ 5 + 12% of 900 = ____?
(a) 200 (b) 210 (c) 220 (d) 267

16. (540 × 3 – 220) ÷ 10 + 50% of 360 = ____?
(a) 250 (b) 320 (c) 270 (d) 280

17. (36 + 82 – 25) × 7 ÷ 3 + 20% of 200 = ____?
(a) 177 (b) 180 (c) 257 (d) 186

18. (128 × 9) – (225 ÷ 5) + 28% of 700 = ____?
(a) 1290 (b) 1303 (c) 1310 (d) 1320

19. (1160 – 425 + 280) × 3 ÷ 7 + 45% of 400 = ____?
(a) 400 (b) 410 (c) 420 (d) 615

20. (999 × 4) – (800 ÷ 4) + 60% of 500 = ____?
(a) 3906 (b) 4006 (c) 4106 (d) 4096

Answer Key

1. (a) **2.** (c) **3.** (a) **4.** (d) **5.** (d) **6.** (a) **7.** (a)
8. (b) **9.** (b) **10.** (a) **11.** (d) **12.** (c) **13.** (a) **14.** (b)
15. (d) **16.** (b) **17.** (c) **18.** (b) **19.** (d) **20.** (d)

Exercise-7

1. (72 + 34 – 19) × 5 ÷ 2 + 20% of 100 + 15% of 200 = _____?
   (a) 269.5 (b) 267.5 (c) 271.5 (d) 273.5
2. (198 × 3) – (275 ÷ 5) + 15% of 400 + 10% of 350 = _____?
   (a) 580 (b) 590 (c) 634 (d) 610
3. (450 + 320 – 145) ÷ 5 + 10% of 150 + 25% of 120 = _____?
   (a) 170 (b) 175 (c) 180 (d) 185
4. (85 × 7) – (315 ÷ 9) + 25% of 300 + 30% of 400 = _____?
   (a) 720 (b) 730 (c) 740 (d) 755
5. (99 + 56 – 24) × 8 ÷ 4 + 12% of 200 + 8% of 500 = _____?
   (a) 310 (b) 315 (c) 320 (d) 326
6. (560 + 275 – 185) ÷ 5 + 40% of 250 + 15% of 180 = _____?
   (a) 215 (b) 220 (c) 257 (d) 230
7. (45 × 12 – 85) ÷ 5 + 30% of 90 + 50% of 150 = _____?
   (a) 160 (b) 165 (c) 170 (d) 193
8. (625 + 185 – 120) × 2 ÷ 5 + 10% of 800 + 12% of 400 = _____?
   (a) 404 (b) 500 (c) 510 (d) 520

9. (980 – 345 + 215) ÷ 17 + 20% of 250 + 5% of 600 = _____?
(a) 200 (b) 210 (c) 220 (d) 130

10. (56 × 9) – (110 ÷ 5) + 18% of 400 + 24% of 250 = _____?
(a) 640 (b) 650 (c) 660 (d) 614

11. (750 + 980 – 410) ÷ 6 + 25% of 240 + 35% of 300 = _____?
(a) 315 (b) 320 (c) 385 (d) 330

12. (1280 – 560 + 250) ÷ 10 + 15% of 600 + 28% of 500 = _____?
(a) 325 (b) 330 (c) 335 (d) 327

13. (720 × 4) – (250 ÷ 5) + 35% of 500 + 20% of 800 = _____?
(a) 3400 (b) 3450 (c) 3165 (d) 3550

14. (630 + 490 – 270) × 2 ÷ 4 + 40% of 200 + 10% of 900 = _____?
(a) 530 (b) 540 (c) 550 (d) 595

15. (1020 – 450 + 225) ÷ 5 + 12% of 900 + 50% of 240 = _____?
(a) 387 (b) 370 (c) 380 (d) 390

16. (540 × 3 – 220) ÷ 10 + 50% of 360 + 35% of 720 = _____?
(a) 572 (b) 510 (c) 420 (d) 430

17. (36 + 82 – 25) × 7 ÷ 3 + 20% of 200 + 10% of 400 = _____?
(a) 200 (b) 210 (c) 220 (d) 297

18. (128 × 9) – (225 ÷ 5) + 28% of 700 + 15% of 900 = _____?
(a) 1450 (b) 1438 (c) 1470 (d) 1480

BODMAS

19. $(1160 - 425 + 280) \times 3 \div 7 + 45\%$ of $400 + 60\%$ of $500 =$ _____?

(a) 900 (b) 910 (c) 915 (d) 930

20. $(999 \times 4) - (800 \div 4) + 60\%$ of $500 + 25\%$ of $1200 =$ _____?

(a) 4506 (b) 4396 (c) 4706 (d) 4806

Answer Key

1. (b) **2.** (c) **3.** (a) **4.** (d) **5.** (d) **6.** (c) **7.** (d)
8. (a) **9.** (d) **10.** (d) **11.** (c) **12.** (d) **13.** (c) **14.** (d)
15. (a) **16.** (a) **17.** (d) **18.** (b) **19.** (c) **20.** (b)

Exercise-8

1. $72 \div 8 + 3 \times (6 - 4) =$ _____?

(a) 9 (b) 15 (c) 18 (d) 24

2. $144 \div 12 + 3 \times 5 - 2 =$ _____?

(a) 18 (b) 21 (c) 25 (d) 27

3. $100 - [25 \div (5 + 5)] \times 4 =$ _____?

(a) 90 (b) 94 (c) 96 (d) 98

4. $(18 \div 3) + (27 \div 9) \times (5 + 2) =$ _____?

(a) 15 (b) 27 (c) 19 (d) 21

5. $80 \div 4 \times 2 - 5 + 3 =$ _____?

(a) 38 (b) 40 (c) 42 (d) 44

6. $48 \div (6 - 2) \times (8 \div 4) + 10 =$ _____?

(a) 28 (b) 34 (c) 36 (d) 40

7. $100 \div 5 \times (3 + 2) - 20 =$ _____?

(a) 40 (b) 60 (c) 80 (d) 100

8. $200 - [50 \div (5 + 5)] \times (6 + 4) =$ _____?

(a) 120 (b) 140 (c) 150 (d) 160

9. $300 \div 10 + 4 \times (6 + 3) - 15 =$ _____?
(a) 30 (b) 33 (c) 36 (d) 51

10. $225 \div (5 \times 3) + 4 \times (7 - 2) =$ _____?
(a) 20 (b) 24 (c) 29 (d) 35

11. $400 \div (8 + 2) \times 5 + 25 =$ _____?
(a) 200 (b) 225 (c) 250 (d) 275

12. $120 \div 6 \times 4 - 10 + 2 =$ _____?
(a) 65 (b) 72 (c) 75 (d) 80

13. $500 \div (20 + 5) \times 6 - 15 =$ _____?
(a) 100 (b) 105 (c) 110 (d) 115

14. $90 \div 3 + (12 - 6) \times 5 =$ _____?
(a) 60 (b) 42 (c) 44 (d) 46

15. $360 \div (9 + 3) \times 8 - 5 =$ _____?
(a) 225 (b) 235 (c) 245 (d) 255

16. $(144 \div 12) \times (6 + 4) - 8 =$ _____?
(a) 96 (b) 104 (c) 112 (d) 120

17. $625 \div (25 + 5) \times 9 - 20 =$ _____?
(a) 167.5 (b) 171.5 (c) 180.5 (d) 190.5

18. $900 \div (30 - 15) \times (5 + 3) - 50 =$ _____?
(a) 400 (b) 430 (c) 440 (d) 460

19. $720 \div (24 - 6) \times 10 + 15 =$ _____?
(a) 365 (b) 375 (c) 385 (d) 415

20. $1024 \div (32 - 16) \times (4 + 2) - 100 =$ _____?
(a) 284 (b) 300 (c) 320 (d) 340

Answer Key

1. (b) 2. (c) 3. (a) 4. (b) 5. (a) 6. (b) 7. (c)
8. (c) 9. (d) 10. (d) 11. (b) 12. (b) 13. (b) 14. (a)
15. (b) 16. (c) 17. (a) 18. (b) 19. (d) 20. (a)

08 Square and Square root
(वर्ग और वर्गमूल)



Square of any 2 digit no.

❖ $(72)^2 \rightarrow 7 \quad 2 \rightarrow (7 \times 2) \times 2 = 28$

$\downarrow \quad \downarrow$

$7^2 \quad 2^2$

49 04 ← (दो अंकों में लिखना है)

+2 8_ ← (Unit digit छोड़कर लिखना है)

51 84

$(72)^2 \rightarrow 5184$

1. 82^2 = _____ ?
2. 83^2 = _____ ?
3. 84^2 = _____ ?
4. 86^2 = _____ ?
5. 87^2 = _____ ?
6. 88^2 = _____ ?
7. 89^2 = _____ ?
8. 90^2 = _____ ?

Answer Key

1. 6727 **2.** 6889 **3.** 7056 **4.** 7396

5. 7569 **6.** 7744 **7.** 7921 **8.** 8100

Square of the numbers whose unit digit is 1.

Ex. 1 → $(31)^2 \rightarrow (30)^2 + (30+31) \rightarrow 900 + 61 = 961$

Ex. 2 → $(21)^2 \rightarrow (20)^2 + (20+21) \rightarrow 400 + 41 = 441$

Ex. 3 → $(41)^2 \rightarrow (40)^2 + (40+41) \rightarrow 1600 + 81 = 1681$

Ex. 4 → $(61)^2 \rightarrow (60)^2 + (60+61) \rightarrow 3600 + 121 = 3721$

Ex. 5 → $(91)^2 \rightarrow (90)^2 + (90+91) \rightarrow 8100 + 181 = 8281$

Ex. 6 → $(111)^2 \rightarrow (110)^2 + (110+111)$

→ 12100 + 221 = 12321

Ex. 7→ $(151)^2$ →

$(150)^2 + (150+151) \rightarrow 22500 + 301 = 22801$

Ex. 8→ $(301)^2$ →

$(300)^2 + (300+301) \rightarrow 90000 + 601 = 90601$

Square of the numbers whose unit digit is 9

Ex. 1→ $(19)^2 \rightarrow (20)^2 - (19+20) \rightarrow 400 - 39 = 361$

Ex. 2→ $(29)^2 \rightarrow (30)^2 - (29+30) \rightarrow 900 - 59 = 841$

Ex. 3→ $(39)^2 \rightarrow (40)^2 - (39+40) \rightarrow 1600 - 79 = 1521$

Ex. 4→ $(59)^2 \rightarrow (60)^2 - (59+60) \rightarrow 3600 - 119 = 3481$

Ex. 5→ $(99)^2 \rightarrow (100)^2 - (99+100)$

$\rightarrow$ 10000 – 199 = 9801

Ex. 6→ $(199)^2$ →

$(200)^2 - (199+200) \rightarrow 40000 - 399 = 39601$

Ex. 7→ $(249)^2$ →

$(250)^2 - (249+250) \rightarrow 62500 - 499 = 62001$

Square of the numbers between 40 and 49

Base = 50

Ex. 1→ Find the square of 48.

Step 1→ 25 – (Difference of 50 and given number)

25 – (50 – 48) = 23

Step 2→ (Difference of 50 and given number)^2 = $(2)^2$

= 04 ← (दो अंकों में लिखना है)

$\therefore 48^2 = 2304$

Ex. 2→ Find the square of 49.

Step 1 → 25 – 1 = 24

Step 2 → $(1)^2 = 01$

$\therefore 49^2 =$ **2401**

Ex. 3→ Find the square of 47.

Step 1 → 25 – 3 = 22

Step 2 → $(3)^2 = 09$

$\therefore 47^2 =$ **2209**

Ex. 4→ Find the square of 46.

Step 1 → 25 – 4 = 21

Step 2 → $(4)^2 = 16$

$\therefore 46^2 =$ **2116**

Ex. 5→Find the square of 44.

Step 1 → 25 – 6 = 19

Step 2 → $(6)^2 = 36$

$\therefore 44^2 =$ **1936**

Square of the numbers between 51 and 59

Base = 50

Ex. 1→ Find the square of 52.

Step 1 → 25 + (Difference of given number and 50)

25 + (52 – 50) = 27

Step 2 → (Difference of given number and 50)^2 = $(2)^2$ = 04 ← (दो अंकों में लिखना है)

$\therefore 52^2 =$ **2704**