Number System

A gardener organizes trees into rows to create a square formation but discovers that 16 trees are not included. If the total number of trees is 4112 , then what is the number of trees in each row? SSC CGL 17/09/2025 (Shift 3)

(a) 42

(b) 54

(c) 64

(d) 65

The difference between the two numbers is 1370. On dividing the larger by the smaller, the quotient is 7, and the remainder is 14. Find the smaller number. Graduate Level 28/07/2025 (Shift - 3)

(a) 240

(b) 226

(c) 285

(d) 295

If two numbers are each divided by the same divisor, then the remainders are 6 and 7, respectively. If the sum of the two numbers be divided by the same divisor, then the remainder is 5. The divisor is:

(a) 6

(b) 4

(c) 13

(d) 8

Ram gives a six-digit number 468312 to Shyam to check the divisibility. Shyam tells Ram that the number is divisible by 57. Shyam asks Ram, “If we rearrange the digits of this number in descending order, then by which number will it be always divisible ?”

(a) 2

(b) 3

(c) 19

(d) 17

The number 150328 is divisible by 23. If the digits are rearranged in descending order and five times of 13 is subtracted from the new number thus formed, then the resultant number will be divisible by:

(a) 3

(b) 5

(c) 11

(d) 2

Let p, q, r and s be positive natural numbers having three exact factors including 1 and the number itself If q > p and both are two-digit numbers, and r > s and both are one-digit numbers, then the value of the expression $\frac{p-q-1}{r-s}$ is:

(a) - s - 1

(b) s - 1

(c) 1 - s

(d) s + 1

Arrange the fractions $\frac{6}{11}, \frac{5}{8}, \frac{4}{7}$ and $\frac{3}{5}$ in ascending order.

SSC CGL 12/09/2025 (Shift 1)

(a) $\frac{3}{5}, \frac{4}{7}, \frac{5}{8}, \frac{6}{11}$

(b) $\frac{6}{11}, \frac{4}{7}, \frac{3}{5}, \frac{5}{8}$

(c) $\frac{6}{11}, \frac{3}{5}, \frac{4}{7}, \frac{5}{8}$

(d) $\frac{6}{11}, \frac{4}{7}, \frac{5}{8}, \frac{3}{5}$

If $\left(\frac{1}{4-\sqrt{15}}\right) - \left(\frac{1}{\sqrt{15}-\sqrt{14}}\right) + \left(\frac{1}{\sqrt{14}-\sqrt{13}}\right) - \left(\frac{1}{\sqrt{13}-\sqrt{12}}\right) + \left(\frac{1}{\sqrt{12}-\sqrt{11}}\right) - \left(\frac{1}{\sqrt{11}-\sqrt{10}}\right) + \left(\frac{1}{\sqrt{10}-3}\right) = x$

Then find the value of (x + 1) = ? SSC CGL 13/09/2025 (Shift 2)

(a) 8

(b) 7

(c) 2

(d) 0

Which of the following is equal to 14 ? SSC CGL 15/09/2025 (Shift 2)

(a) $(\sqrt{11}+\sqrt{5})^2 - 2\sqrt{55}$

(b) $(\sqrt{5}+\sqrt{5})^2$

(c) $(\sqrt{2}+\sqrt{3})^2 + 2\sqrt{6}$

(d) $(\sqrt{8}+\sqrt{6})^2 - 2\sqrt{48}$

Solve system: $y = 4x + 2$ and $y = -2x + 8$

SSC CGL 15/09/2025 (Shift 2)

(a) (1, 6)

(b) (2, 5)

(c) (3, 7)

(d) (0, 1)

Express 0.232323... as a fraction. SSC CGL 15/09/2025 (Shift 2)

$(a)\ \frac{23}{99}$

$(b)\ \frac{23}{90}$

$(c)\ \frac{23}{999}$

$(d)\ \frac{23}{900}$

Which of the following is the least 6-digit number, which is not a perfect square ? SSC CGL 19/09/2025 (Shift 2)

(a) 100489

(b) 100000

(c) 101124

(d) 100788

If you subtract the square of a number from 2796 and then multiply the result by 13, you get 35711. What is that number ? SSC CGL 19/09/2025 (Shift 3)

(a) ±8

(b) ±6

(c) ±9

(d) ±7

Find the solution to the system: y = 7x - 4 and y = -2x + 14. SSC CGL 20/09/2025 (Shift 1)

(a) (2, 10)

(b) (17, 2)

(c) (1.5, 3.5)

(d) (1.5, -4.5)

Find the value of x in the given equation: $\frac{\sqrt{8+x}+\sqrt{8-x}}{\sqrt{8+x}-\sqrt{8-x}} = 5$

SSC CGL 20/09/2025 (Shift 3)

$(a)\ \frac{46}{13}$

$(b)\ \frac{36}{13}$

$(c)\ \frac{40}{13}$

$(d)\ \frac{66}{17}$

What is the smallest number that must be added to 5600 to make it a perfect square ?

SSC CGL 21/09/2025 (Shift 1)

(a) 23

(b) 24

(c) 25

(d) 26

A water tub can hold 12.5 liters of water. How many such water tubs are needed to fill a 1 cubic meter tank ? SSC CGL 22/09/2025 (Shift 1)

(a) 80

(b) 70

(c) 65

(d) 90

A number is increased by 100, and the result becomes a perfect square. The original number lies between two consecutive square numbers, 729 and 784. Find the original number. SSC CGL 14/10/2025 (Shift 2)

(a) 700

(b) 732

(c) 741

(d) 745

Thank You