

Directions (Q.1-5): What should come in place of the question mark (?) in the following questions?

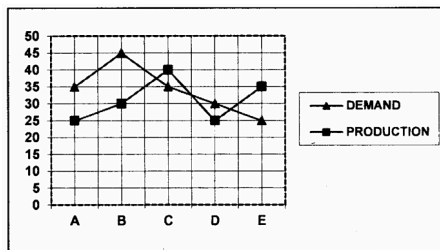
- $\sqrt{\sqrt{3481 + \sqrt{276 + 208}}} = \sqrt{?}$
1) 9 2) 81 3) 6561
4) 18 5) None of these
- $(2784\% \text{ of } 32) \div 116 = ?$
1) 6.95 2) 7.92 3) 7.87
4) 7.68 5) None of these
- $(21)^2 + (45)^2 = (?)^2 + 162$
1) 7 2) 48 3) 42
4) 53 5) None of these
- $92 + 18 \times 1.25 - 8 = ?$
1) 129.5 2) 109.25 3) 106.5
4) 127.5 5) None of these
- $(36)^2 \times 8 \div (?)^2 = 162$
1) 4096 2) 8 3) 64
4) 128 5) None of these
- What **approximate** value should come in place of the question mark (?) in the following question?
 $69.847 \div 20.928 \times 22.513 = ?$
1) 75 2) 79 3) 71
4) 81 5) 68

Directions (Q. 7-10): What should come in place of question mark (?) in the following number series questions?

- 8 20 60 ? 840 3780
1) 345 2) 148 3) 225
4) 210 5) None of these
- 13 ? 33 46 63 82
1) 21 2) 20 3) 24
4) 18 5) None of these
- 575 483 399 323 255 ?
1) 185 2) 196
3) 205 4) 197
5) None of these
- 6 14.5 47 ? 968 5814.5
1) 134.5 2) 192.5
3) 324 4) 273.25
5) None of these

Directions (Q. 11-15): Study the following graph carefully and answer the questions accordingly.

Following graph gives the demand and production of mobile phones of five companies A, B, C, D and E (in thousands)



- The production of company E is what percent of the demand?
1) 71.4% 2) 85% 3) 140%
4) 75% 5) None of these
- What is the average production of mobile phones by all the companies?
1) 3100 2) 25000 3) 26000
4) 31000 5) 24000
- The production of mobile phones by company C is the same as the production of which of the following pairs of the companies?
1) A and D 2) B and E 3) D and E
4) B and A 5) None of these
- The demand of company D is approximately what percent of the demand of company B?
1) 30% 2) 65% 3) 85% 4) 40% 5) 50%
- To meet its demand, the company A wishes to buy the surplus mobile phones from a single company. Which of the following companies can supply?
1) B 2) C 3) D 4) E 5) None
- The area of a rectangular field is 2058 sq. metres. If the field is 49 metres long, what is its perimeter?

Number series tests present numerical sequences that follow a logical rule which is based on elementary arithmetic.

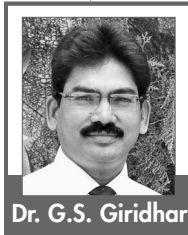
An initial sequence is given from which the relation between the numbers is to find out. You are then asked to find the missing number or the next number that follows the rule.



What is the officer's age?

SBI Clerks Quantitative Aptitude

- 1) 182 metres 2) 216 metres
3) 84 metres 4) Cannot be determined
5) None of these
- In how many different number of ways can a committee of 3 persons be selected from 5 men and 3 women?
1) 210 2) 35 3) 56 4) 70 5) None
- The production of a factory grows at a rate of 6% p.a. What will be its approximate production for the year 2012 if its production in 2010 was 178 lakh tons?
1) 196 lakh tons
2) 180 lakh tons
3) 175 lakh tons
4) 200 lakh tons
5) 185 lakh tons
- Marked price of an article is Rs.590. A discount of 5% is offered. What was the cost price if 18% profit was made on that?
1) Rs.420 2) Rs.475 3) Rs.530
4) Rs.455 5) None of these



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- The average age of six employees in a department is 32 years. If the age of their officer is added the average increased by 1. What is the officer's age?
1) 32 years 2) 41 years 3) 38 years
4) 42 years 5) None of these
- The ratio of the ages of father and his son at present is 4 : 1. The ratio will become 13 : 4 after three years. What will be the age of the father after 5 years?
1) 36 2) 27 3) 34 4) 41 5) None
- The difference between 79% of a number and 43% of the same number is 3467.52. What is 22% of that number?
1) 2536.27 2) 2119.04 3) 2354.73
4) 2136.84 5) None of these
- The simple interest accrued on an amount of Rs.8420 at the end of 6 years is Rs.3536.40. What is the rate of interest p.c.p.a.?
1) 7 2) 5 3) 6
4) 4 5) None of these
- 21 men can complete a piece of work in 32 days. How many more men must be hired to complete the same work in 14 days?
1) 48 2) 24 3) 14
4) 27 5) None of these
- The mean of five consecutive numbers is 21. Which is the highest number?
1) 19 2) 21 3) 23
4) Cannot be determined
5) None of these

ANSWERS

1- 2	6- 1	11- 3	16- 1	21- 4
2- 4	7- 4	12- 4	17- 3	22- 2
3- 2	8- 2	13- 5	18- 4	23- 1
4- 3	9- 5	14- 2	19- 2	24- 4
5- 2	10- 2	15- 4	20- 2	25- 3.

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EXPLANATIONS

- $\sqrt{\sqrt{3481 + \sqrt{276 + 208}}} = \sqrt{?}$
 $\Rightarrow \sqrt{\sqrt{3481 + \sqrt{484}}} = \sqrt{?}$
 $\Rightarrow \sqrt{59 + 22} = \sqrt{?}$
 $\Rightarrow ? = 81$
- $(2784\% \text{ of } 32) \div 116$
 $\Rightarrow 890.88 \div 116 = 7.68$
- $(21)^2 + (45)^2 = (?)^2 + 162$
 $\Rightarrow (?)^2 = 441 + 2025 - 162 = 2304$
 $\Rightarrow ? = \sqrt{2304} = 48$
- $92 + 18 \times 1.25 - 8$
 $\Rightarrow 92 + 22.5 - 8 = 106.5$
- $(36)^2 \times 8 \div (?)^2 = 162$
 $\Rightarrow \frac{36 \times 36 \times 8}{?^2} = 162$
 $\Rightarrow ?^2 = \frac{36 \times 36 \times 8}{162} = 64$
 $\Rightarrow ? = \sqrt{64} = 8$
- $69.847 \div 20.928 \times 22.513 = ?$
 $\frac{70 \times 22.5}{21} = 75$
- $13 + 7 = 20$
 $20 + 11 = 33$
 $33 + 13 = 46$
 $46 + 17 = 63$
 $63 + 19 = 82$
- $8 \times 2.5 = 20$
 $20 \times 3 = 60$
 $60 \times 3.5 = 210$
 $210 \times 4 = 840$
 $840 \times 4.5 = 3780$
- $576 - 1 = 575$
 $484 - 1 = 483$
 $400 - 1 = 399$
- $6 \times 2 + 2.5 = 14.5$
 $14.5 \times 3 + 3.5 = 47$
 $47 \times 4 + 4.5 = 192.5$
 $192.5 \times 5 + 5.5 = 968$
 $968 \times 6 + 6.5 = 5814.5$
- Required Percent = $\frac{35}{25} \times 100 = 140\%$
- $\frac{25 + 30 + 40 + 25 + 35}{5}$ thousands
 $= \frac{155000}{5} = 31000$
- Required Percent = $\frac{30}{45} \times 100 = 66.67\%$
- Breadth = $\frac{\text{Area}}{\text{Length}} = \frac{2058}{49} = 42 \text{ m}$
Perimeter = $2(49 + 42) = 182 \text{ m}$
- ${}^8C_3 = \frac{8 \times 7 \times 6}{3 \times 2 \times 1} = 56$
- Production in 2012 is 106% of 106% 178 lakh tons

$$\Rightarrow \frac{106}{100} \times \frac{106}{100} \times 178 = 200 \text{ Lakh tons}$$

19. Selling Price = 95% of 590
= Rs. 560.5

$$\text{Cost Price} = \frac{100}{100 + 18} \times 560.50$$

$$= \frac{56050}{118} = \text{Rs.475}$$

Shortcut:

$$\text{Cost Price} = \frac{100 - \text{Discount}\%}{100 + \text{Profit}\%} \times \text{Marked Price}$$

$$\Rightarrow \text{C.P.} = \frac{95}{118} \times 590 = \text{Rs.475}$$

20. Total age of 6 employees

$$= 6 \times 32 = 192 \text{ yrs}$$

$$\text{Total age of 6 employees + officer}$$

$$= 7 \times 33 = 231 \text{ yrs}$$

$$\therefore \text{Age of officer} = 231 - 192 = 39 \text{ yrs}$$

Shortcut: Officer's Age = $32 + (7 \times 1) = 39 \text{ yrs}$

21. Let the present ages of father and his son be $4x$ and x

$$\therefore 4x + 3 : x + 3 = 13 : 4$$

$$\Rightarrow 16x + 12 = 13x + 39$$

$$\Rightarrow 3x = 27 \Rightarrow x = 9$$

$$\therefore \text{Father's age after 5 years will be } 4x + 5$$

$$= 4 \times 9 + 5 = 41 \text{ years}$$

22. Difference between 79% and 43% is 36%.

If 36% value is 3467.52, then

$$22\% \text{ value} = \frac{22}{36} \times 3467.52 = 2119.04$$

$$23. R = \frac{\text{S.I.} \times 100}{P \times T} = \frac{3536.40 \times 100}{8420 \times 6} = 7\%$$

24. Let 'x' men finish the work in 14 days

$$\therefore 21 \times 32 = x \times 14$$

$$\Rightarrow x = \frac{21 \times 32}{14} = 48$$

$\therefore 48 - 21 = 27$ more men are required

25. Let the 5 numbers be $x, x + 1, x + 2, x + 3$ and $x + 4$

$$\therefore \frac{x + x + 1 + x + 2 + x + 3 + x + 4}{5} = 21$$

$$\Rightarrow \frac{5x + 10}{5} = 21 \Rightarrow 5x = 95 \Rightarrow x = 19$$

Highest number is $19 + 4 = 23$

Shortcut: When the consecutive numbers are in odd figure, the middle number will be the mean of those numbers. Here 21 is the middle number.

\therefore The numbers are 19, 20, 21, 22, 23.

ఉద్యోగాలు

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