

Banking Daily Quiz Blog - March 15



1. The time take by a boat in upstream is double than the time taken by it in downstream, but distance covered by it in upstream is only 75% of distance covered by it in downstream. Find the ratio of speed of boat in still water to speed of current.

A 11 : 5

B 5 : 11

C 11 : 7

D 7 : 11

E None of these

Solution

Let still water speed of boat is x km/hr and speed of current y km/hr

ATQ—

Let d be the distance covered by boat in downstream.

$$\frac{\frac{3d}{4}}{(x-y)} = 2 \frac{d}{(x+y)}$$

$$\frac{x}{y} = \frac{11}{5}$$

$$x : y = 11 : 5$$

What approximate value should come in the place of question mark in following question.

2. $379.98 + (7.99)^2 - ? + 901.03 = 969.93$

A 380

B 385

C 370

D 375

E 360

Solution

$$380 + 64 - ? + 901 = 970$$

$$? = 1345 - 970$$

$$? = 375$$

What approximate value should come in the place of question mark in following question.

3. $(89.99\% \text{ of } 7000.02 + (24.01)^2) \div ? = 1719.01$

A 4

B 8

C 12

D 16

E 18

Solution

$$\left(\frac{90}{100} \times 7000 + 576\right) \div ? = 1719$$

$$? = \frac{6876}{1719}$$

$$? = 4$$

What approximate value should come in the place of question mark in following question.

4. $32.01 \times 4.99 + ? = 64.03 \% \text{ of } 349.97$

A 80

B 76

C 64

D 96

E 90

Solution

$$160 + ? = \frac{64}{100} \times 350$$

$$? = 224 - 160$$

$$? = 64$$

What approximate value should come in the place of question mark in following question.

5. $\frac{312.07}{?} + (12.99)^2 = 20.01\% \text{ of } 909.99$

A 44

B 34

C 24

D 40

E 20

Solution

$$\frac{312}{?} + 169 = \frac{20}{100} \times 910$$

$$\frac{312}{?} = 182 - 169$$

$$\frac{312}{?} = 13$$

$$? = 24$$

What approximate value should come in the place of question mark in following question.

6. $199.99 + 12.01\% \text{ of } 499.99 - \sqrt[3]{63.99} = ?^2$

A 22

B 10

C 14

D 16

E 20

Solution

$$200 + \frac{12}{100} \times 500 - 4 = ?^2$$

$$256 = ?^2$$

$$? = 16$$

What approximate value should come in the place of question mark in following question.

7. $\frac{84.01}{?} + 26.03\% \text{ of } 799.97 + \sqrt[4]{16.03} = (5.99)^3$

A 10

B 14

C 18

D 22

E 26

Solution

$$\frac{84}{?} + \frac{26}{100} \times 800 + 2 = 216$$

$$\frac{84}{?} = 216 - 210$$

$$? = 14$$

Directions: Solve the given quadratic equations and mark the correct option based on your answer

8. I. $x^2 = 256$

II. $y^2 - 17y + 16 = 0$

A $x > y$

B $x \geq y$

C $x < y$

D $x \leq y$

E $x = y$ or no relation can be established between x and y

Solution

I. $x = \pm 16$

II. $y^2 - 17y + 16 = 0$

$y(y - 16) - 1(y - 16) = 0$

$(y - 1)(y - 16) = 0$

$$(y - 1)(y - 10)$$

$$y = 1, 16$$

So, no relation can be established

Directions: Solve the given quadratic equations and mark the correct option based on your answer

9. I. $x^2 + 20x + 100 = 0$

II. $y^2 + 13y + 30 = 0$

A $x > y$

B $x \geq y$

C $x < y$

D $x \leq y$

E $x = y$ or no relation can be established between x and y

Solution

$$\text{I. } x^2 + 10x + 10x + 100 = 0$$

$$x(x + 10) + 10(x + 10) = 0$$

$$(x + 10)(x + 10) = 0$$

$$x = -10$$

$$\text{II. } y^2 + 10y + 3y + 30 = 0$$

$$(y + 10) + 3(y + 10) = 0$$

$$y(y + 10) + 3(y + 10) = 0$$

$$(y + 10)(y + 3)$$

$$y = -10 - 3$$

$$\text{So, } x \leq y$$

Directions: Solve the given quadratic equations and mark the correct option based on your answer

10. I. $4x^2 - 8x - 5 = 0$

II. $2y^2 - 11y + 14 = 0$

A $x > y$

B $x \geq y$

C $x < y$

D $x \leq y$

E $x = y$ or no relation can be established between x and y

Solution

I. $4x^2 - 8x - 5 = 0$

$$4x^2 - 10x + 2x - 5 = 0$$

$$2x(2x - 5) + 1(2x - 5) = 0$$

$$(2x + 1)(2x - 5) = 0$$

$$(4x + 1)(4x - 9) = 0$$

$$x = -\frac{1}{4}, \frac{9}{4}$$

$$II. 2y^2 - 4y - 7y + 14 = 0$$

$$2y(y - 2) - 7(y - 2) = 0$$

$$(2y - 7)(y - 2) = 0$$

$$y = 2, \frac{7}{2}$$

So, no relation can be established between x & y

Directions: Solve the given quadratic equations and mark the correct option based on your answer

11. I. $6x^2 + 5x + 1 = 0$

II. $20y^2 + 9y + 1 = 0$

A $x > y$

B $x \geq y$

C $x < y$

D $x \leq y$

E no relation can be established between x and y

E

x = y or no relation can be established between x and y

Solution

$$I. 6x^2 + 3x + 2x + 1 = 0$$

$$(3x + 1)(2x + 1) = 0$$

$$x = -\frac{1}{2}, -\frac{1}{3}$$

$$II. 20y^2 + 5y + 4y + 1 = 0$$

$$(4y + 1)(5y + 1) = 0$$

$$y = -\frac{1}{4}, -\frac{1}{5}$$

$$\text{So, } y > x$$

Directions: Solve the given quadratic equations and mark the correct option based on your answer

12. I. $2x^2 - 9x + 9 = 0$

II. $6y^2 - 17y + 12 = 0$

A

x > y

B

x ≥ y

C

x < y

D

x ≤ y

E

x = y or no relation can be established between x and y

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x = y or no relation can be established between x and y

Solution

I. $2x^2 - 9x + 9 = 0$

$2x^2 - 6x - 3x + 9 = 0$

$(2x - 3)(x - 3) = 0$

$x = \frac{3}{2}, 3$

II. $6y^2 - 17y + 12 = 0$

$6y^2 - 8y - 9y + 12 = 0$

$(2y - 3)(3y - 4) = 0$

$y = \frac{3}{2}, \frac{4}{3}$

So, $x \geq y$

Directions: Solve the given quadratic equations and mark the correct option based on your answer

13. I. $4x^2 - 17x + 15 = 0$

II. $2y^2 - 17y + 35 = 0$

A

x > y

B

x ≥ y

C

x < y

D

x ≤ y

E

$x = y$ or no relation can be established between x and y

Solution

$$I. 4x^2 - 17x + 15 = 0$$

$$4x^2 - 12x - 5x + 15 = 0$$

$$4x(x - 3) - 5(x - 3) = 0$$

$$(x - 3)(4x - 5) = 0$$

$$x = 3, \frac{5}{4}$$

$$II. 2y^2 - 17y + 35 = 0$$

$$2y^2 - 10y - 7y + 35 = 0$$

$$2y(y - 5) - 7(y - 5) = 0$$

$$(y - 5)(2y - 7) = 0$$

$$y = 5, \frac{7}{2}$$

So, $y > x$

14. **The average of four numbers is 120. Two of the numbers are equal (not least), and 60 more than the least number. If the 4th number is thrice the least number then find the average of smallest and largest number.**

A

110

B 140

C 120

D 90

E 60

Solution

Let the two equal numbers be 'a' each

Therefore, least number = $(a - 60)$

4th number = $3(a - 60)$

According to the question,

$$3(a - 60) + a - 60 + a + a = 4 \times 120$$

$$\text{Or, } 6a - 240 = 480$$

$$\text{Or, } a = \frac{720}{6} = 120$$

Therefore, 4 numbers are 120, 120, 60 and 180

$$\text{Therefore, required average} = \frac{180+60}{2} = 120$$

15. Ratio of monthly income of 2 person is 35 : 46, while their monthly expenditures are in the ratio 3 : 4 . If they have saved Rs. 13,000 and Rs. 16,000 monthly respectively, then find the difference in their monthly income?

monthly income:

A Rs. 28,000

B Rs. 17,000

C Rs. 22,000

D Rs. 35,000

E Rs. 18,500

Solution

Ratio of monthly income of 2 person = 35 : 46

Let their monthly income = $35x$, $46x$

Ratio of expenditure of two person = 3 : 4

They have saved Rs. 13,000 and Rs. 16,000 monthly respectively.

∴ according to the question:

$$\frac{35x-13000}{46x-16000} = \frac{3}{4}$$

$$140x - 52000 = 138x - 48000$$

$$2x = 4000$$

$$x = 2000$$

Difference in monthly income of 2 person = $46x - 35x = 11x$

= 11×2000

= 22,000

