

CDS 2 2024

LIVE

MATHS

REVISION

CLASS 6



NAVJYOTI SIR



12 August 2024 Live Classes Schedule

| | | |
|--------|--------------------------------------|---------------|
| 8:00AM | 12 AUGUST 2024 DAILY CURRENT AFFAIRS | RUBY MA'AM |
| 9:00AM | 12 AUGUST 2024 DAILY DEFENCE UPDATES | DIVYANSHU SIR |

SSB INTERVIEW LIVE CLASSES

| | | |
|--------|----------------------|----------------|
| 9:00AM | OVERVIEW OF PIQ & PI | ANURADHA MA'AM |
|--------|----------------------|----------------|

NDA 2 2024 LIVE CLASSES

| | | |
|---------|-----------------------------------|----------------|
| 11:00AM | GK - POLITY REVISION - CLASS 3 | RUBY MA'AM |
| 12:00PM | PHYSICS REVISION - CLASS 6 | NAVJYOTI SIR |
| 1:00PM | MATHS REVISION - CLASS 6 | NAVJYOTI SIR |
| 2:00PM | BIOLOGY REVISION - CLASS 6 | SHIVANGI MA'AM |
| 5:30PM | ENGLISH - MATCHING LIST - CLASS 2 | ANURADHA MA'AM |

CDS 2 2024 LIVE CLASSES

| | | |
|---------|-----------------------------------|----------------|
| 11:00AM | GK - POLITY REVISION - CLASS 2 | RUBY MA'AM |
| 12:00PM | PHYSICS REVISION - CLASS 5 | NAVJYOTI SIR |
| 2:00PM | BIOLOGY REVISION - CLASS 5 | SHIVANGI MA'AM |
| 3:00PM | MATHS REVISION - CLASS 5 | NAVJYOTI SIR |
| 5:30PM | ENGLISH - MATCHING LIST - CLASS 2 | ANURADHA MA'AM |



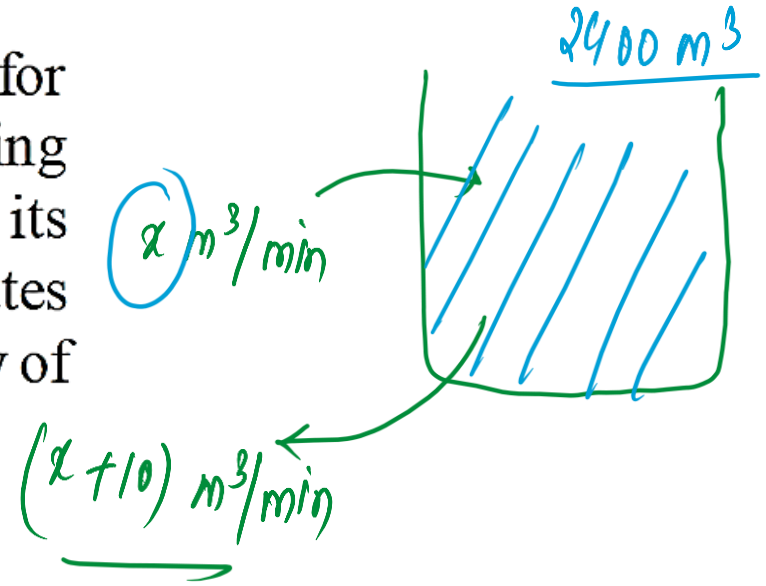
**REVISION
TOPIC :**

- **Average**
- **Ratio and Proportion**

Q) A pump can be operated both for filling a tank and for emptying it. The capacity of tank is 2400 m^3 . The emptying capacity of the pump is 10 m^3 per minute higher than its filling capacity. Consequently, the pump needs 8 minutes less to empty the tank to fill it. Find the filling capacity of pump.

- (a) $50 \text{ m}^3/\text{min}$
 (c) $58 \text{ m}^3/\text{min}$

- (b) $60 \text{ m}^3/\text{min}$
 (d) None of these



$$\left(\frac{2400}{x} - \frac{2400}{x+10} = 8 \right)$$

Q) A pump can be operated both for filling a tank and for emptying it. The capacity of tank is 2400 m^3 . The emptying capacity of the pump is 10 m^3 per minute higher than its filling capacity. Consequently, the pump needs 8 minutes less to empty the tank to fill it. Find the filling capacity of pump.

- (a) $50 \text{ m}^3/\text{min}$ (b) $60 \text{ m}^3/\text{min}$
(c) $58 \text{ m}^3/\text{min}$ (d) None of these

Ans: (a)

Q) A contract is to be completed in 46 days and 117 men were set to work, each working 8 hours a day. After 33 days, 4/7 of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day?

- (a) 80 (b) 81 (c) 82 (d) 83

$$\frac{3}{7} = (46 - 33) \times 9$$

$$46 \times 8$$

$$33 \times 8 = \frac{264}{7} = \left(\frac{4}{7}\right)$$

$$\frac{264}{\frac{4}{7}} = 1$$

$$\frac{264}{7} \times \frac{7}{4} = 462 \text{ hrs}$$

$$\frac{3}{7} = 117$$

$$1 = \frac{117}{\frac{3}{7}} = \frac{117 \times 7}{3} = 273 \text{ hours}$$

Let x more men are employed.

{ no. of men \times no. of hours } = constant

$$117 \times 462 = (117 + x) \times 273$$

$$\frac{117 \times 462 - 273 \times 117}{273} = x$$

$$x = \frac{\overset{9}{117} \times \overset{9}{189}}{\cancel{273} / \cancel{21}} = 81$$

- Q) A contract is to be completed in 46 days and 117 men were set to work, each working 8 hours a day. After 33 days, $\frac{4}{7}$ of the work is completed. How many additional men may be employed so that the work may be completed in time, each man now working 9 hours a day ?
- (a) 80 (b) 81 (c) 82 (d) 83

Ans: (b)

Q) The average age of a group of person going for picnic is 16 years. Twenty new persons with an average age of 15 years join the group on the spot due to which their average becomes 15.5 years. Find the number of persons initially going for picnic.

(a) 20

(b) 18

(c) 22

(d) None of these



$$\frac{16x + (20)(15)}{x + 20} = 15.5$$

Q) The average age of a group of person going for picnic is 16 years. Twenty new persons with an average age of 15 years join the group on the spot due to which their average becomes 15.5 years. Find the number of persons initially going for picnic.

- (a) 20 (b) 18
(c) 22 (d) None of these

Ans: (b)

Q) Let the average score of a class of boys and girls in an examination be p . The ratio of boys and girls in the class is 3 : 1. If the average score of the boys is $(p + 1)$, then what is the average score of the girls? (x)

- (a) $(p - 1)$ (b) $(p - 2)$ (c) $(p - 3)$ (d) p

$3k$
(boys)

k
(girls)

$$\frac{3k(p+1) + k(x)}{3k+k} = p$$

$$\frac{3p+3+x}{4} = p$$

$$\underline{x = (p-3)}$$

Q) Let the average score of a class of boys and girls in an examination be p . The ratio of boys and girls in the class is $3 : 1$. If the average score of the boys is $(p + 1)$, then what is the average score of the girls?

- (a) $(p - 1)$ (b) $(p - 2)$ (c) $(p - 3)$ (d) p

Ans: (c)

Q) The average of 20 numbers is zero. Of them, at the most,
how many may be greater than zero?

(a) 0

(b) 1

(c) 10

(d) 19

(Maximum)

Sum of 20 nos. = 0

$$(a_1 + a_2 + \dots + a_{19}) + a_{20} = 0$$

$$(a_1 + a_2 + a_3 + \dots + a_{19}) = -(a_{20})$$

Q) The average of 20 numbers is zero. Of them, at the most, how many may be greater than zero?

(a) 0

(b) 1

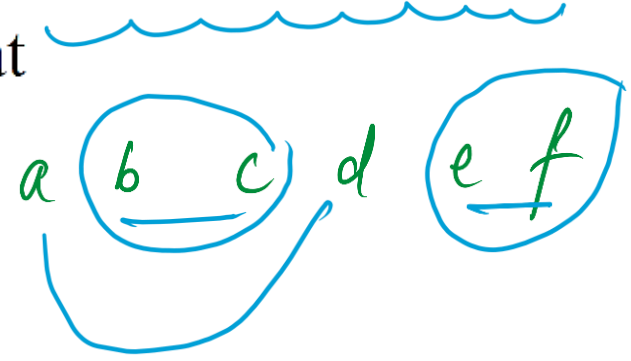
(c) 10

(d) 19

Ans: (d)

Q) The average of six numbers is 3.95. The average of two of them is 3.4, while the average of the other two is 3.85. What is the average of the remaining two numbers?

- (a) 4.5 (b) 4.6 (c) 4.7 (d) 4.8



$$\text{sum of six numbers} = 6 \times 3.95 =$$

$$\text{sum of two} = 2 \times 3.4 =$$

$$\text{" " other two} = 2 \times 3.85 =$$

$$\begin{aligned} \text{sum of remaining two} &= 6 \times 3.95 - (2 \times 3.4 + 2 \times 3.85) \\ \text{Average " " " " } &= \frac{6 \times 3.95 - (2 \times 3.4 + 2 \times 3.85)}{2} \end{aligned}$$

Q) The average of six numbers is 3.95. The average of two of them is 3.4, while the average of the other two is 3.85. What is the average of the remaining two numbers?

- (a) 4.5 (b) 4.6 (c) 4.7 (d) 4.8

Ans: (b)

Q) The average of 5 consecutive numbers is n . If the next two numbers are also included, the average of the 7 numbers will

- | | |
|---------------------|---------------------|
| (a) increase by 2 | (b) increase by 1 |
| (c) remain the same | (d) increase by 1.4 |

Ans: (b)

Q) There are 50 boys in a class. Their average weight is 45 kg. When one boy leaves the class, the average reduces by 100 g. Find the weight of the boy who left the class.

- (a) 40.9 kg (b) 42.9 kg (c) 49.9 kg (d) 39.9 kg

$$\frac{(45 \times 50) - x}{49} = \frac{x \text{ kg}}{44.9} \quad \left\{ \begin{array}{l} \text{OR} \\ 45 - \frac{(45 \times 50) - x}{49} = 0.1 \end{array} \right.$$

- Q)** There are 50 boys in a class. Their average weight is 45 kg. When one boy leaves the class, the average reduces by 100 g. Find the weight of the boy who left the class.
- (a) 40.9 kg (b) 42.9 kg (c) 49.9 kg (d) 39.9 kg

Ans: (c)

Q) The average age of a board of 8 functional directors in a company is the same as it was 3 years ago, a younger man having been substituted for one of the directors. How much younger was the new man than the director whose place he took.

- (a) 24 years (b) 26 years
(c) 28 years (d) None of these

$$\frac{\text{Sum of age of 8 dir.}}{8} = \frac{\text{Sum of age of 7 dir.} - (3 \times 7) + (x-3)}{8}$$

$$\text{age of 1 direct.} - x = \text{24}$$

Q) The average age of a board of 8 functional directors in a company is the same as it was 3 years ago, a younger man having been substituted for one of the directors. How much younger was the new man than the director whose place he took.

- (a) 24 years (b) 26 years
(c) 28 years (d) None of these

Ans: (a)

Q) The average of a batsman for 40 innings is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, his average drops by 2 runs. Find his highest score.

- (a) 172 (b) 173 (c) 174 (d) 175

Q) The average of a batsman for 40 innings is 50 runs. His highest score exceeds his lowest score by 172 runs. If these two innings are excluded, his average drops by 2 runs. Find his highest score.

- (a) 172 (b) 173 (c) 174 (d) 175

Ans: (c)

Q) Nine men went to a hotel. 8 of them spent ₹ 3 each over their meals and the ninth spent Rs 2 more than the average expenditure of all the nine. The total money spent by all of them was

- (a) ₹ 26 (b) ₹ 40 (c) ₹ 29.25 (d) ₹ 27

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- (a) ₹ 26 (b) ₹ 40 (c) ₹ 29.25 (d) ₹ 27

Ans: (c)

Q) The average of 41 consecutive odd numbers is 49. What is the largest number.

(a) 89

(b) 91

(c) 93

(d) 95

Q) The average of 41 consecutive odd numbers is 49. What is the largest number.

- (a) 89 (b) 91 (c) 93 (d) 95

Ans: (a)

Q) The average marks of section A are 65 and that of section B are 70. If the average marks of both the sections combined are 67, then the ratio of number of students of section A to that of section B is

- (a) 3 : 2 (b) 1 : 3 (c) 3 : 1 (d) 2 : 3

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- (a) 3 : 2 (b) 1 : 3 (c) 3 : 1 (d) 2 : 3

Ans: (a)

Q) A batsman in his 12th innings makes a score of 65 and thereby increases his average by 2 runs. What is his average after the 12th innings if he had never been ‘not out’?

- (a) 42 (b) 43 (c) 44 (d) 45

Q) A batsman in his 12th innings makes a score of 65 and thereby increases his average by 2 runs. What is his average after the 12th innings if he had never been ‘not out’?

- (a) 42 (b) 43 (c) 44 (d) 45

Ans: (b)

Q) 3 years ago the average age of a family of 5 members was 17 years. With the birth of a new baby, the average age of six members remains the same even today. Find the age of the new baby.

- (a) 1 year (b) 2 years
(c) $1\frac{1}{2}$ years (d) cannot be determined

Q) 3 years ago the average age of a family of 5 members was 17 years. With the birth of a new baby, the average age of six members remains the same even today. Find the age of the new baby.

- (a) 1 year (b) 2 years
(c) $1\frac{1}{2}$ years (d) cannot be determined

Ans: (b)

Q) A librarian purchased 60 story books for his library. But he found that he could get 4 extra books by spending ₹ 336 more and then the overall average price per book would be reduced by ₹ 1. The previous average price of each book was

- (a) ₹84 (b) ₹ 83 (c) ₹68 (d) ₹100

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- (a) ₹84 (b) ₹ 83 (c) ₹68 (d) ₹100

Ans: (d)

Q) Out of 250 observations, the first 100 observations have mean 5 and the average of the remaining 150 observations is $\frac{25}{3}$. What is the average of the whole group of observations?

(a) 6

(b) 7

(c) 8

(d) 9

Q) Out of 250 observations, the first 100 observations have mean 5 and the average of the remaining 150 observations is $\frac{25}{3}$. What is the average of the whole group of observations?

(a) 6

(b) 7

(c) 8

(d) 9

Ans: (b)

Q) Three science classes A , B and C take a Life Science test. The average score of class A is 83. The average score of class B is 76. The average score of class C is 85. The average score of class A and B is 79 and average score of class B and C is 81. Then the average score of classes A , B and C is

- (a) 80.5 (b) 81.5 (c) 80 (d) 81

Q) Three science classes A , B and C take a Life Science test. The average score of class A is 83. The average score of class B is 76. The average score of class C is 85. The average score of class A and B is 79 and average score of class B and C is 81. Then the average score of classes A , B and C is

- (a) 80.5 (b) 81.5 (c) 80 (d) 81

Ans: (b)

Q) The price of a commodity increased by 5% from 2010 to 2011, 8% from 2011 to 2012 and 77% from 2012 to 2013. What is the average price increase (approximate) from 2010 to 2013?

- | | |
|---------|---------|
| (a) 26% | (b) 32% |
| (c) 24% | (d) 30% |

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- | | |
|---------|---------|
| (a) 26% | (b) 32% |
| (c) 24% | (d) 30% |

Ans: (d)

Q) I was born 30 years after my father was born. My sister was born 25 years after my mother was born. The average age of my family is 26.25 years right now. My sister will get married 4 years from now and will leave the family. Then the average age of the family will be $\frac{107}{3}$ years. What is the age of my father?

- (a) 30 years (b) 35 years
(c) 40 years (d) 45 years

Q) I was born 30 years after my father was born. My sister was born 25 years after my mother was born. The average age of my family is 26.25 years right now. My sister will get married 4 years from now and will leave the family. Then the average age of the family will be $\frac{107}{3}$ years. What is the age of my father?

- (a) 30 years (b) 35 years
(c) 40 years (d) 45 years

Ans: (d)

Q) The average monthly salary of all the employees in a factory is ₹ 8840. If the average salary of all the officers is ₹ 15000 and that of the remaining employees is ₹ 8000, then what is the percentage of the officers among the employees?

- (a) 12% (b) $9\frac{5}{7}\%$ (c) $8\frac{1}{3}\%$ (d) $11\frac{2}{3}\%$

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- (a) 12% (b) $9\frac{5}{7}\%$ (c) $8\frac{1}{3}\%$ (d) $11\frac{2}{3}\%$

Ans: (a)

Q) A family consists of grandparents, parents and three grandchildren. The average age of the grandparents is 67 years, that of the parents is 35 years and that of the grandchildren is 6 years. What is the average age of the family?

(a) $28\frac{4}{7}$ years

(b) $31\frac{5}{7}$ years

(c) $32\frac{1}{7}$ years

(d) None of these

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- (a) $28\frac{4}{7}$ years (b) $31\frac{5}{7}$ years
(c) $32\frac{1}{7}$ years (d) None of these

Ans: (b)

Q) The monthly incomes of A and B are in the ratio $4:3$. Each saves ₹ 600. If their expenditures are in the ratio $3:2$, then what is the monthly income of A ?

- (a) ₹ 1800 (b) ₹ 2000 (c) ₹ 2400 (d) ₹ 3600

$$\left(\begin{array}{l} 4 : 3 \\ 3 : 2 \end{array} \right)$$

$$4 - 3 = 1 = 3 - 2$$

$$1 \rightarrow 600$$

$$4 \rightarrow 4 \times 600 = \underline{2400}$$

$$\begin{array}{l|l} 4x & 3x \\ 3y & 2y \\ \hline \text{OR} & \end{array}$$

Saving = Income - Expenditure

$$4x - 3y = 3x - 2y$$

$$x = y$$

$$4x - 3y = 600$$

$$x = 600$$

$$4x = \underline{2400}$$

- Q)** The monthly incomes of A and B are in the ratio $4 : 3$. Each saves ₹ 600. If their expenditures are in the ratio $3 : 2$, then what is the monthly income of A ?
- (a) ₹ 1800 (b) ₹ 2000 (c) ₹ 2400 (d) ₹ 3600

Ans: (c)

Q) The train fare and bus fare between two stations is in the ratio 3 : 4. If the train fare increases by 20% and bus fare increase by 30%, then what is the ratio between revised train fare and revised bus fare?

- (a) $\frac{9}{13}$ (b) $\frac{17}{12}$ (c) $\frac{32}{43}$ (d) $\frac{19}{21}$

$$3k \quad 4k$$

$$\frac{3k \times \frac{120}{100}}{4k \times \frac{130}{100}} = \frac{\cancel{3} \times \cancel{12} \times 2}{\cancel{4} \times 13} = \frac{9}{13}$$

Q) The train fare and bus fare between two stations is in the ratio 3 : 4. If the train fare increases by 20% and bus fare increase by 30%, then what is the ratio between revised train fare and revised bus fare?

- (a) $\frac{9}{13}$ (b) $\frac{17}{12}$ (c) $\frac{32}{43}$ (d) $\frac{19}{21}$

Ans: (a)

Q) Given y is inversely proportional to \sqrt{x} , and $x = 36$ when $y = 36$. What is the value of x when $y = 54$?

- (a) 54 (b) 27 (c) 16 (d) 8

$$y \propto \frac{1}{\sqrt{x}} \Rightarrow y = \frac{k}{\sqrt{x}}$$

$$\sqrt{x}y = k$$

$$\sqrt{36} \times 36 = k$$

$$k = 6 \times 36 = 216$$

$$\sqrt{x} = \frac{k}{y}$$

$$\sqrt{x} = \frac{216}{54} = 4$$

$$\sqrt{x} = 4$$

$$x = 16$$

Q) Given y is inversely proportional to \sqrt{x} , and $x = 36$ when $y = 36$. What is the value of x when $y = 54$?

- (a) 54 (b) 27 (c) 16 (d) 8

Ans: (c)

Q) If $a : b = c : d = 1 : 6$, then what is the value of $\frac{a^2 + c^2}{b^2 + d^2}$?

- (a) $\frac{1}{600}$ (b) $\frac{1}{60}$ (c) $\frac{1}{36}$ (d) $\frac{1}{6}$

$$\begin{cases} a = k \\ c = m \end{cases} \begin{cases} b = 6k \\ d = 6m \end{cases}$$

$$\frac{k^2 + m^2}{36k^2 + 36m^2} = \left(\frac{1}{36}\right)$$

Q) If $a : b = c : d = 1 : 6$, then what is the value of $\frac{a^2 + c^2}{b^2 + d^2}$?

(a) $\frac{1}{600}$

(b) $\frac{1}{60}$

(c) $\frac{1}{36}$

(d) $\frac{1}{6}$

Ans: (c)

Q) A and B start an enterprise together, with A as active partner. A invests ₹ 4000 and ₹ 2000 more after 8 months. B invests ₹ 5000 and withdraws ₹ 2000 after 9 months. Being the active partner, A takes ₹ 100 per month as allowance, from the profit. What is the share of B if the profit for the year is ₹ 6700?

- (a) ₹ 3350 (b) ₹ 3250 (c) ₹ 2700 (d) ₹ 2800

$$\frac{4000 \times 8 + 2000 \times 4}{5000 \times 9 - 2000 \times 3} = \frac{5500 - x}{x}$$

$$79000x = 5500 \times 39000$$

$$x = \frac{5500 \times 39000}{79000} \approx \underline{\underline{₹ 2700}}$$

A's allowance \rightarrow ₹ 1200 ✓

$$6700 - 1200$$

$$= \underline{\underline{5500}}$$

- Q) A and B start an enterprise together, with A as active partner. A invests ₹ 4000 and ₹ 2000 more after 8 months. B invests ₹ 5000 and withdraws ₹ 2000 after 9 months. Being the active partner, A takes ₹ 100 per month as allowance, from the profit. What is the share of B if the profit for the year is ₹ 6700?
- (a) ₹ 3350 (b) ₹ 3250 (c) ₹ 2700 (d) ₹ 2800

Ans: (c)

Q) A milk vendor bought 28 litres of milk at the rate of ₹ 8.50 per litre. After adding some water he sold the mixture at the same price. If his gain is 12.5%, how much water did he add?

- | | |
|----------------|--------------|
| (a) 4.5 litres | (b) 4 litres |
| (c) 3.5 litres | (d) 3 litres |

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- (a) 4.5 litres (b) 4 litres
(c) 3.5 litres (d) 3 litres

Ans: (c)

Q) If $A : B = 1 : 2$, $B : C = 3 : 4$, $C : D = 2 : 3$ and $D : E = 3 : 4$,
then what is $B : E$ equal to?

- (a) $3 : 2$ (b) $1 : 8$ (c) $3 : 8$ (d) $4 : 1$

Q) If $A : B = 1 : 2$, $B : C = 3 : 4$, $C : D = 2 : 3$ and $D : E = 3 : 4$,
then what is $B : E$ equal to?

- (a) $3 : 2$ (b) $1 : 8$ (c) $3 : 8$ (d) $4 : 1$

Ans: (c)

Q) An alloy A contains two elements, copper and tin in the ratio of $2 : 3$, whereas an alloy B contains the same elements in the ratio of $3 : 4$. If 20 kg of alloy A , 28 kg of alloy B and some more pure copper are mixed to form a third alloy C which now contains copper and tin in the ratio of $6 : 7$, then what is the quantity of pure copper mixed in the alloy C ?

- (a) 3 kg (b) 4 kg (c) 5 kg (d) 7 kg

- Q) An alloy A contains two elements, copper and tin in the ratio of $2 : 3$, whereas an alloy B contains the same elements in the ratio of $3 : 4$. If 20 kg of alloy A , 28 kg of alloy B and some more pure copper are mixed to form a third alloy C which now contains copper and tin in the ratio of $6 : 7$, then what is the quantity of pure copper mixed in the alloy C ?
- (a) 3 kg (b) 4 kg (c) 5 kg (d) 7 kg

Ans: (b)

Q) In a mixture of milk and water of volume 30 litre, the ratio of milk and water is 7 : 3. The quantity of water to be added to the mixture to make the ratio of milk and water 1 : 2 is

- (a) 30
- (c) 33

- (b) 32
- (d) 35

Q) In a mixture of milk and water of volume 30 litre, the ratio of milk and water is 7 : 3. The quantity of water to be added to the mixture to make the ratio of milk and water 1 : 2 is

- (a) 30
(c) 33

- (b) 32
(d) 35

Ans: (c)

Q) The sides of a triangle are in the ratio $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. If its perimeter is 52 cm, then what is the length of the smallest side?

- | | |
|-----------|-----------|
| (a) 9 cm | (b) 10 cm |
| (c) 11 cm | (d) 12 cm |

Q) The sides of a triangle are in the ratio $\frac{1}{2} : \frac{1}{3} : \frac{1}{4}$. If its perimeter is 52 cm, then what is the length of the smallest side?

- (a) 9 cm (b) 10 cm
(c) 11 cm (d) 12 cm

Ans: (d)

- Q)** A, B and C started a business. A invests $\frac{1}{2}$ capital for $\frac{1}{4}$ time, B invests $\frac{1}{8}$ capital for $\frac{1}{2}$ time and C invests the remaining capital for whole time. Find the share of B in the total profit of ₹ 9900.
- (a) ₹ 2200 (b) ₹ 1100 (c) ₹ 6600 (d) ₹ 4400

- Q)** A, B and C started a business. A invests $\frac{1}{2}$ capital for $\frac{1}{4}$ time, B invests $\frac{1}{8}$ capital for $\frac{1}{2}$ time and C invests the remaining capital for whole time. Find the share of B in the total profit of ₹ 9900.
- (a) ₹2200 (b) ₹1100 (c) ₹6600 (d) ₹4400

Ans: (b)

Q) Divide ₹ 671 among A, B, C such that if their shares be increased by ₹ 3, ₹ 7 and ₹ 9 respectively, the remainder shall be in the ratio 1 : 2 : 3.

- (a) ₹ 112, ₹ 223, ₹ 336 (b) ₹ 114, ₹ 221, ₹ 336
(c) ₹ 112, ₹ 227, ₹ 332 (d) ₹ 114, ₹ 223, ₹ 334

Q) Divide ₹ 671 among A, B, C such that if their shares be increased by ₹ 3, ₹ 7 and ₹ 9 respectively, the remainder shall be in the ratio 1 : 2 : 3.

- (a) ₹ 112, ₹ 223, ₹ 336 (b) ₹ 114, ₹ 221, ₹ 336
(c) ₹ 112, ₹ 227, ₹ 332 (d) ₹ 114, ₹ 223, ₹ 334

Ans: (a)

Q) $(x + y) : (x - y) = 3 : 5$ and $xy = \text{positive}$ imply that

- (a) x and y are both positive
- (b) x and y are both negative
- (c) one of them is positive and one of them is negative
- (d) no real solutions for x and y exist

- Q)** $(x + y) : (x - y) = 3 : 5$ and $xy = \text{positive}$ imply that
- (a) x and y are both positive
 - (b) x and y are both negative
 - (c) one of them is positive and one of them is negative
 - (d) no real solutions for x and y exist

Ans: (d)

Q) The height of a tree varies as the square root of its age (between 5 to 17 yr). When the age of the tree is 9 yr, its height is 4 ft. What will be the height of the tree at the age of 16 yr ?

- (a) 5 ft 4 inch (b) 5 ft 5 inch
(c) 4 ft 4 inch (d) 4 ft 5 inch

Q) The height of a tree varies as the square root of its age (between 5 to 17 yr). When the age of the tree is 9 yr, its height is 4 ft. What will be the height of the tree at the age of 16 yr ?

- (a) 5 ft 4 inch (b) 5 ft 5 inch
(c) 4 ft 4 inch (d) 4 ft 5 inch

Ans: (a)

Q) In an express train, the passengers travelling in A.C. sleeper class, First class and Sleeper class are in the ratio 1:2:7, and rate for each class is in the ratio 5 : 4 : 2. If the total income from this train is ₹ 54, 000, find the income of Indian Railways from A.C. sleeper class.

(a) ₹ 12,000

(b) ₹ 20,000

(c) ₹ 22,000

(d) ₹ 10,000

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CLASS 7



NAVJYOTI SIR

**REVISION
TOPICS :
(13/08/24)**

- **Mensuration – Area and Perimeter**