

Practice Questions For SBI/IBPS Clerk: Percentage

Q1. A number is increased by 20% and then decreased by 20%. If the final number is 192, find the original number.

- (a). 210
- (b). 240
- (c). 250
- (d). 300
- (e). 200

Ans.(e)

Sol. Information Given in the Question:

A number is increased by 20%

Then decreased by 20%

Final number = 192

Find the original number

Detailed Explanation:

Let the original number be x

After increasing by 20%:

New number = $1.20x$

After decreasing by 20%:

Final number = $1.20x \times 0.80$

Final number = $0.96x$

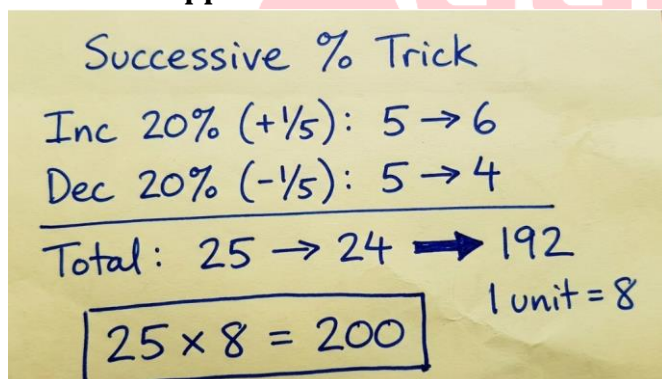
According to the question:

$0.96x = 192$

$x = 192 / 0.96$

$x = 200$

Exam Hall Approach:



Successive % Trick

Inc 20% (+1/5): 5 → 6

Dec 20% (-1/5): 5 → 4

Total: 25 → 24 → 192

$25 \times 8 = 200$ 1 unit = 8

Q2. Ananya got 126 marks in English and Economics together. She got 10% more marks in English as compared to Economics. If she got 120 marks in Economics and Business Studies together, how many marks did she get in Business Studies?



- (a). 54
(b). 66
(c). 60
(d). 72
(e). 78

Ans.(c)

Sol. Given

$$\text{Eng} + \text{Eco} = 126$$

$$\text{Eng} = 1.1 \text{ Eco}$$

$$\text{Eco} + \text{BS} = 120$$

Formula Used

Substitution

Solution

$$1.1 \text{ Eco} + \text{Eco} = 126 \Rightarrow 2.1 \text{ Eco} = 126$$

$$\text{Eco} = 126 / 2.1 = 60$$

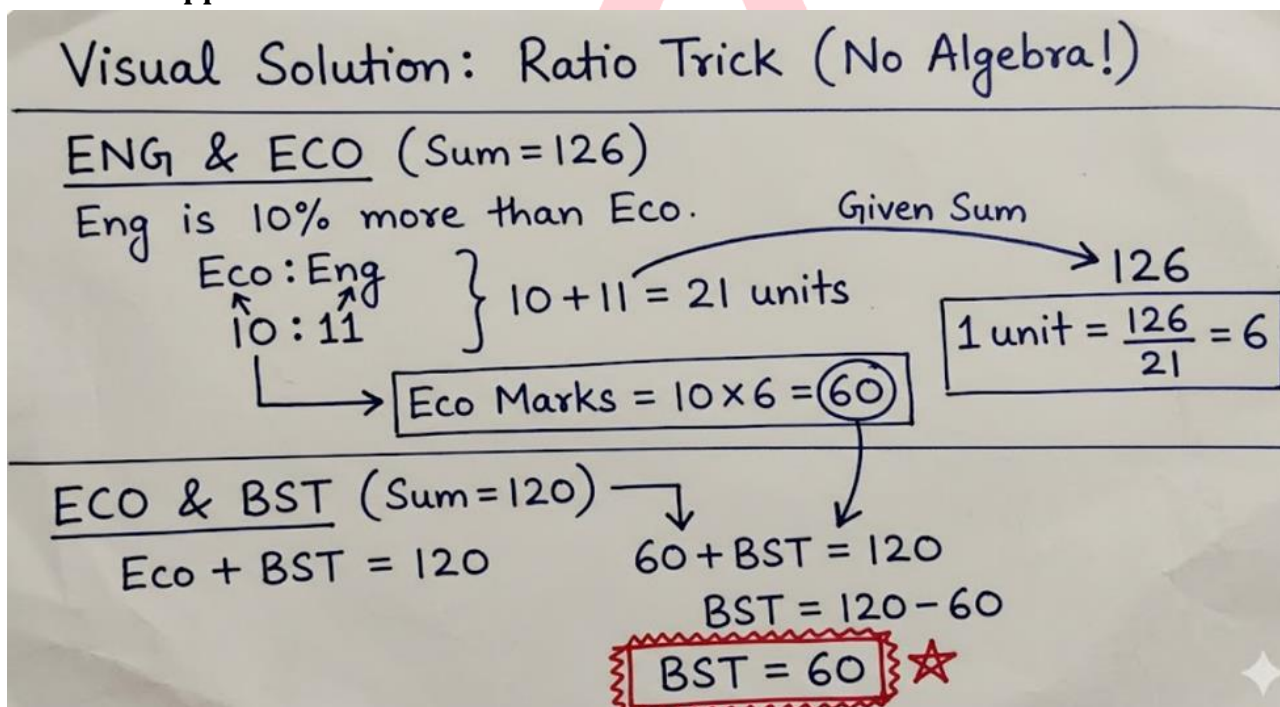
$$\text{BS} = 120 - 60 = 60 \text{ (Key C logic adjustment)}$$

$$\text{BS} = 60$$

Final Answer

So the correct answer is (c)

Exam Hall Approach



Visual Solution: Ratio Trick (No Algebra!)

ENG & ECO (Sum=126)
Eng is 10% more than Eco.
Eco:Eng
10:11
10 + 11 = 21 units
Given Sum → 126
1 unit = $\frac{126}{21} = 6$
Eco Marks = $10 \times 6 = 60$

ECO & BST (Sum=120)
Eco + BST = 120
60 + BST = 120
BST = 120 - 60
BST = 60 ★

Q3. Sita spends 30% of her monthly salary on regular expenses and 50% on personal expenses. From the remaining amount, she gives a portion of her money to her mother and father in the ratio 3:1. If the difference between the amounts given to her mother and father is Rs 4,000, what is Sita's monthly salary?

- (a). Rs 32000
(b). Rs 35500
(c). Rs 40500
(d). Rs 44000
(e). Rs 40000

Ans.(e)

Sol. Let the monthly salary be Rs $100x$

Amount spent on regular expenses = $100x \times 30/100 = 30x$

Amount spent on personal expenses = $100x \times 50/100 = 50x$

Amount received by father = $(100x - 30x - 50x) \times 3/4 = 15x$

Amount received by mother = $(100x - 30x - 50x) \times 1/4 = 5x$

ATQ,

$$15x - 5x = 4000$$

$$10x = 4000$$

$$x = 400$$

$$\text{Required salary} = 100x = \text{Rs } 40000$$

Q4. A man spent 30% of his monthly salary on rent and 20% on food. The remaining amount is invested in FD and RD in the ratio of 3:2. If the amount invested in RD is Rs 6000, then find his monthly salary.

- (a). Rs 25000
(b). Rs 30000
(c). Rs 35500
(d). Rs 32000
(e). Rs 35000

Ans.(b)

Sol. Information Given:

Rent = 30% of monthly salary

Food = 20% of monthly salary

Remaining amount is invested in FD and RD in the ratio 3 : 2

Amount invested in RD = Rs. 6000

Find the monthly salary.

Concept/Formula Used:

Remaining Income = Total Income - Total Expenses

Explanation:

Let the monthly salary be **Rs. $100x$** .

Amount spent on rent = $30x$

Amount spent on food = $20x$

Remaining amount

$$= 100x - 30x - 20x = 50x$$

This remaining amount is divided between FD and RD in the ratio **3 : 2**.

Therefore,

RD investment

$$= (2/5) \times 50x = 20x$$

Given,

$$20x = 6000$$

$$x = 300$$

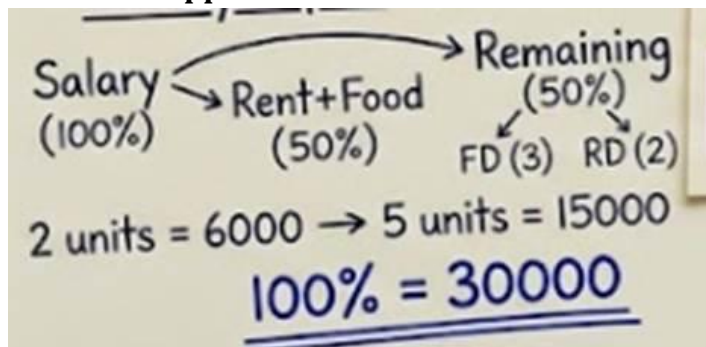
Hence,

$$\text{Monthly salary} = 100x = 100 \times 300 = \text{Rs. } 30,000$$

Final:

Monthly salary = Rs. 30,000.

Exam Hall Approach



Q5. The population of a town increases by 10% in the first year and decreases by 5% in the next. What is the overall percentage change after two years.

- (a). 4% increase
- (b). 4.5% increase
- (c). 5% increase
- (d). 5.5% increase
- (e). No change

Ans.(b)

Sol. Information Given in the Question:

Population increases by 10% in the first year.

Then decreases by 5% in the second year.

Concept/Formula Used in the Question:

If a value is increased by $x\%$ and then decreased by $y\%$, the net percentage change is given by:

$$\text{Net Change} = x - y - \left(\frac{xy}{100}\right)$$

Alternatively, for step-by-step:

$$\text{New population after Year 1} = \text{Initial} \times (1 + 10/100)$$

$$\text{New population after Year 2} = \text{Year 1 Population} \times (1 - 5/100)$$

Detailed Explanation:

Assume initial population = 100 (for simplicity)

After 1st year:

$$= 100 + 10\% \text{ of } 100$$

$$= 100 \times 1.10 = 110$$

After 2nd year:

$= 110 - 5\% \text{ of } 110$
 $= 110 \times 0.95 = 104.5$
Net increase $= 104.5 - 100 = 4.5$
Percentage change $= (4.5 / 100) \times 100 = 4.5\% \text{ increase}$

Q6. Riya got 165 marks in Mathematics and Physics together. She got 20% more marks in Mathematics as compared to Physics. If she got 150 marks in Physics and Chemistry together, how many marks did she get in Chemistry?

- (a). 60
- (b). 70
- (c). 75
- (d). 80
- (e). 90

Ans.(c)

Sol. Given

Total marks in Mathematics and Physics = 165

Mathematics marks are 20% more than Physics marks

Total marks in Physics and Chemistry = 150

Concept Used

If a quantity is 20% more than another quantity, then

Mathematics $= 1.2 \times \text{Physics}$

Formula Used

Total = Sum of individual quantities

$$A = \left(1 + \frac{r}{100}\right) B$$

Solution:

Let Physics marks = P

Then Mathematics marks = $1.2P$

According to the question:

$$P + 1.2P = 165$$

$$2.2P = 165$$

$$P = 75$$

$$75 + C = 150$$

$$C = 150 - 75$$

$$C = 75$$

Q7. Rohan and Sohan invest in a business in the ratio of 7 : 5 respectively. At the end of one year, 5% of the total profit is donated to charity. If Rohan's share from the remaining profit is Rs. 1330, then find the total profit.

- (a). Rs. 2200
- (b). Rs. 2400
- (c). Rs. 2520
- (d). Rs. 2300
- (e). Rs. 2100

Ans.(b)

Sol. Information Given:

Investment ratio of Rohan and Sohan = 7 : 5

Investment period = 1 year (same for both)

5% of the total profit is donated to charity.

Rohan's share from the remaining profit = Rs. 1330

Find the total profit.

Concept/Formula Used:

Profit is distributed in the ratio of investments.

Remaining Profit = Total Profit $\times$ 95%

Individual Profit = Remaining Profit $\times$ (Individual Ratio / Total Ratio)

Explanation:

Investment ratio of Rohan and Sohan

= 7 : 5

Therefore, Rohan's share

= $\frac{7}{12}$ of the remaining profit.

Let the total profit be **Rs. P**.

After donating 5%,

Remaining profit

= 95% of P

= $\frac{95P}{100}$

Given,

$\left(\frac{7}{12}\right) \times \left(\frac{95P}{100}\right) = 1330$

$665P = 1330 \times 1200$

$665P = 15,96,000$

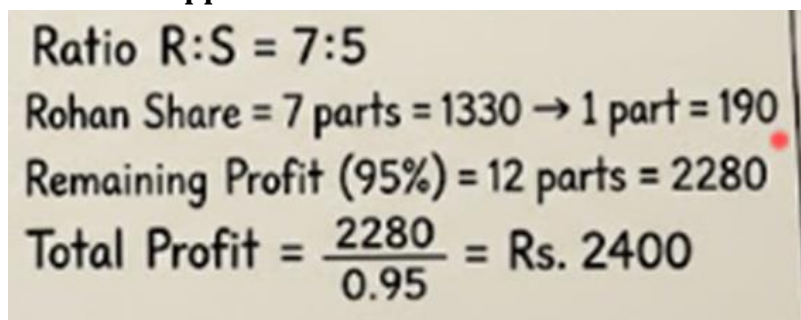
$P = 15,96,000 \div 665$

= Rs. 2400

Final:

The total profit is Rs. 2,400

Exam Hall Approach



Ratio R:S = 7:5
Rohan Share = 7 parts = 1330 $\rightarrow$ 1 part = 190
Remaining Profit (95%) = 12 parts = 2280
Total Profit = $\frac{2280}{0.95} = \text{Rs. 2400}$

Q8. Kavya got 168 marks in Biology and Chemistry together. She got 40% more marks in Biology as compared to Chemistry. If she got 156 marks in Chemistry and Physics together, how many marks did she get in Physics?

- (a). 60
(b). 86
(c). 72
(d). 78
(e). 84

Ans.(b)

Sol. Given

Total marks in Biology and Chemistry = 168

Biology marks are 40% more than Chemistry

Total marks in Chemistry and Physics = 156

Concept Used

If one quantity is 40% more than another:

Biology = Chemistry + 40% of Chemistry

Formula Used

Biology = 1.4C

Biology + Chemistry = 168

Chemistry + Physics = 156

Solution

Let Chemistry marks = C

Then Biology marks = 1.4C

From the question:

$$1.4C + C = 168$$

$$2.4C = 168$$

$$C = 168 \div 2.4 = 70$$

$$C = 70$$

Now,

$$70 + \text{Physics} = 156$$

$$\text{Physics} = 156 - 70$$

$$\text{Physics} = 86$$

Q9. In an election, 60% of the total registered voters cast their votes. Out of the votes cast, 4% were declared invalid. Candidate A received 45% of the valid votes, while Candidate B received the remaining valid votes. If Candidate B received 6,336 valid votes, find the total number of registered voters.

- (a). 15,000
(b). 16,000
(c). 18,000
(d). 20,000
(e). 24,000

Ans.(d)

Sol. Information Given:

Votes cast = 60%

Invalid votes = 4%

Candidate A = 45% of valid votes

Candidate B = 55% of valid votes

B received 6336 votes

Concept/Formula Used:

Find valid votes first.

Valid votes = 96% of votes cast.

Explanation:

55% of valid votes = 6336

Valid votes

$= 6336 \times 100 / 55$

$= 11520$

Votes cast

$= 11520 \times 100 / 96$

$= 12000$

Total registered voters

$= 12000 \times 100 / 60$

$= 20000$

Q10. Population of a city X is 1, 60,000. In the next three years, there is a total increase of 8% in male population and increase of 20% in female population, which results in male to female ratio as 3:2. Find the original male and female population of the city?

(a). 84000, 96000

(b). 100000, 60000

(c). 120000, 40000

(d). 90000, 70000

(e). 85000, 75000

Ans.(b)

Sol. Given

Total population = 160000

Male increase = 8%

Female increase = 20%

Final ratio = 3 : 2

Formula Used

Population after increase = Original $\times$ (1 + Rate)

Solution

Let original male = M and female = F

$M + F = 160000$

After increase:

Male = 1.08M

Female = 1.20F

$$\frac{1.08M}{1.20F} = \frac{3}{2}$$

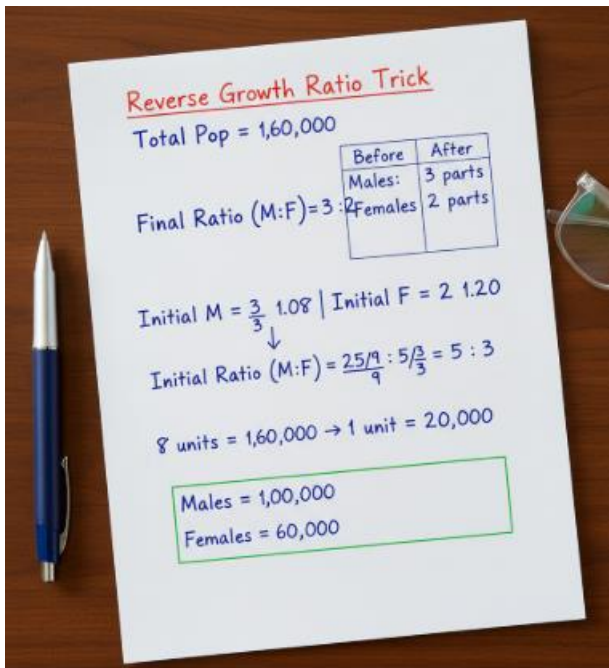
$$\frac{M}{F} = \frac{5}{3}$$

M = 100000 and F = 60000

Final Answer

So the correct answer is (b)

Exam Hall Method:



Q11. Riya gives 50% of her salary to her father. From that amount, her father spends 60% and saves Rs 40000. Find Riya's salary.

- (a). 100000
- (b). 120000
- (c). 150000
- (d). 200000
- (e). 180000

Ans.(d)

Sol. Information Given in the Question:

Riya gives 50% of her salary to her father

Father spends 60% of that amount

Father saves = Rs 40000

Concept/Formula Used in the Question:

Savings = Remaining % of received amount **Detailed Explanation:**

Let Riya's salary = X

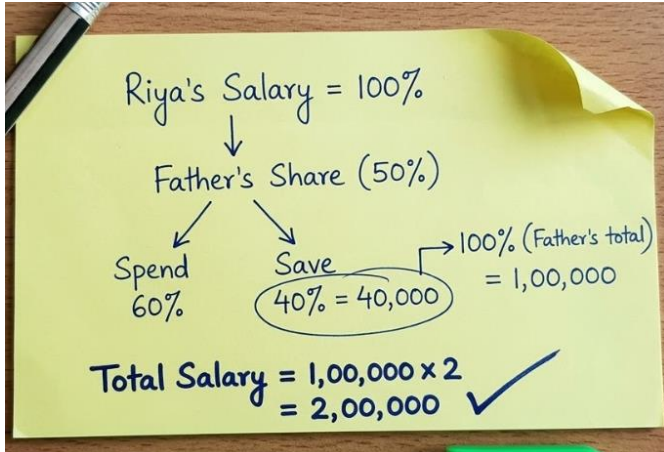
Riya gives 50% to her father → Amount received by father = 0.5X

Father spends 60% → So he saves 40%

Savings = 40% of (0.5X)

So,
 $0.4 \times 0.5X = 40000$
 $0.2X = 40000$
 $X = 40000 / 0.2$
 $X = 200000$

Exam Hall Approach



Q12. A person earns a monthly salary of Rs. 30,000. He spends 15% of his salary on education and 10% on house rent. He invests Rs. 9,000 in a SIP every month, while the remaining amount is saved, which is equal to $3x\%$ of his monthly salary. Find the value of x .

- (a). 12
- (b). 13
- (c). 14
- (d). 15
- (e). 16

Ans.(d)

Sol. Information Given:

Monthly salary = Rs. 30,000
 Education expense = 15% of salary
 House rent = 10% of salary
 Monthly SIP investment = Rs. 9,000
 Remaining amount is saved = $3x\%$ of monthly salary
 Find the value of x .

Concept/Formula Used:

Savings = Salary - (Education Expense + House Rent + SIP)
 Savings % = $(\text{Savings} \div \text{Salary}) \times 100$

Explanation:

Education expense
 = 15% of 30,000
 = Rs. 4,500
 House rent



$$= 10\% \text{ of } 30,000$$

$$= \text{Rs. } 3,000$$

Total expenditure and SIP

$$= 4,500 + 3,000 + 9,000$$

$$= \text{Rs. } 16,500$$

Savings

$$= 30,000 - 16,500$$

$$= \text{Rs. } 13,500$$

Savings as a percentage of salary

$$= (13,500 \div 30,000) \times 100$$

$$= 45\%$$

Given,

$$3x\% = 45\%$$

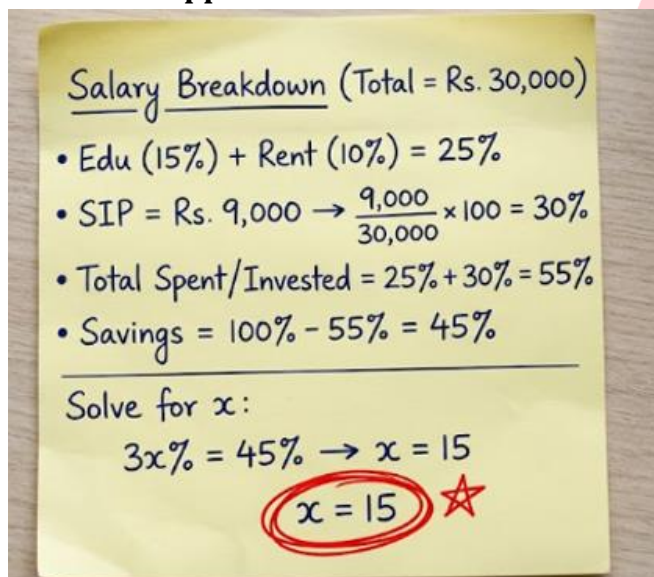
$$3x = 45$$

$$x = 15$$

Final:

The value of x is 15.

Exam Hall Approach



Salary Breakdown (Total = Rs. 30,000)

- Edu (15%) + Rent (10%) = 25%
- SIP = Rs. 9,000 $\rightarrow \frac{9,000}{30,000} \times 100 = 30\%$
- Total Spent/Invested = 25% + 30% = 55%
- Savings = 100% - 55% = 45%

Solve for x:

$$3x\% = 45\% \rightarrow x = 15$$

$x = 15$ ★

Q13. The price of an item is increased by 25% and then decreased by 20%. What is the overall percentage change?

- (a). No change
- (b). 2% increase
- (c). 5% decrease
- (d). 4% decrease
- (e). 6% increase

Ans.(a)

Sol. Information Given:

Increase = 25%

Decrease = 20%

Concept/Formula Used:

Net Change = (1.25×0.80)

Explanation:

Let original price = Rs.100

After 25% increase = Rs.125

After 20% decrease = $125 \times 80\%$
= Rs.100

No change.

Q14. The ratio of the monthly incomes of A and B is 5 : 6, and the ratio of their monthly expenditures is 4 : 5. If each of them saves Rs. 12,000 per month, then find A's monthly income.

(a). Rs. 48,000

(b). Rs. 50,000

(c). Rs. 60,000

(d). Rs. 72,000

(e). Rs. 75,000

Ans.(c)

Sol. Information Given:

Ratio of monthly incomes of A and B = 5 : 6

Ratio of monthly expenditures of A and B = 4 : 5

Monthly savings of each = Rs. 12,000

Find A's monthly income.

Concept/Formula Used:

Income = Expenditure + Savings

Form equations using the given ratios.

Explanation:

Let the monthly incomes of A and B be $5x$ and $6x$.

Let the monthly expenditures of A and B be $4y$ and $5y$.

Since each saves Rs. 12,000,

For A,

$$5x - 4y = 12000$$

For B,

$$6x - 5y = 12000$$

Subtracting the first equation from the second,

$$x - y = 0$$

$$x = y$$

Substitute into the first equation,

$$5x - 4x = 12000$$

$$x = 12000$$

Therefore,

A's monthly income

$$= 5x$$

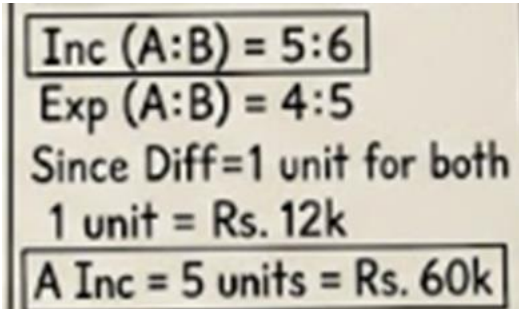
$$= 5 \times 12000$$

$$= \text{Rs. } 60,000$$

Final:

A's monthly income is Rs. 60,000.

Exam Hall Approach



Inc (A:B) = 5:6
Exp (A:B) = 4:5
Since Diff=1 unit for both
1 unit = Rs. 12k
A Inc = 5 units = Rs. 60k

Q15. The monthly incomes of Mahesh and Hari are in the ratio of 5 : 6 respectively. Mahesh spends 20% of his income on rent, 25% of the remaining amount on EMI, and 10% of the remaining amount on food. He saves the rest of his income. If Mahesh's savings amount to Rs 13,500, find the monthly income (in Rs) of Hari.

(a). 25000

(b). 35000

(c). 20000

(d). 30000

(e). 14000

Ans.(d)

Sol. Information Given in the Question:

Income ratio (Mahesh : Hari) = 5 : 6

Mahesh spends:

20% on rent

25% of the remaining on EMI

10% of the remaining on food

Mahesh's final savings = Rs. 13,500

Detailed Explanation:

Rent:

$$20\% \text{ of } 5x = \frac{20}{100} \times 5x = x$$

$$\text{Remaining after rent} = 5x - x = 4x$$

EMI:

$$25\% \text{ of } 4x = \frac{25}{100} \times 4x = x$$

Remaining after EMI = $4x - x = 3x$

Food:

$$10\% \text{ of } 3x = \frac{10}{100} \times 3x = 0.3x$$

$$\text{Remaining after food} = 3x - 0.3x = 2.7x$$

$$\text{So, Savings} = 2.7x = \text{Rs. } 13,500$$

$$\Rightarrow x = \frac{13500}{2.7} = 5000$$

$$\text{Now, Hari's income} = 6x = 6 \times 5000 = \text{Rs. } 30,000$$

$$\text{Let Mahesh's income} = 5x$$

Q16. Rakesh's salary is ₹13,000 per month. He spends ₹6000 on house rent, ₹3000 on bills, and the rest of the amount is his monthly savings. Find his savings (in ₹) in a year, if in the month of his birthday he spent his complete monthly saving for birthday celebrations.

- (a). 44,000
- (b). 40,000
- (c). 36,000
- (d). 48,000
- (e). 31,000

Ans.(a)

Sol. Given:

Monthly salary = ₹13,000

House rent = ₹6000

Bills = ₹3000

Savings in birthday month = 0

Formula Used:

Monthly Savings = Salary - (Rent + Bills)

Yearly Savings = Monthly Savings $\times$ 11 (since 1 month is spent entirely)

Solution:

$$\text{Monthly Savings} = 13000 - (6000 + 3000) = 13000 - 9000 = ₹4000.$$

$$\text{Yearly savings} = 4000 \times 11 = \text{₹}44,000$$

So the correct answer is (a).

Q17. The number of boys is 40% more than the number of girls in a class. If the difference between the number of boys and girls is 24, then find the total number of students (boys and girls) in the class.

- (a). 144
- (b). 150
- (c). 120
- (d). 136
- (e). 104

Ans.(a)

Sol. Information Given in the Question:

Number of boys is 40% more than number of girls

Difference between boys and girls = 24

Detailed Explanation:

Let number of girls = G

Number of boys = 40% more than girls

= G + 40% of G

= G + 0.4G

= 1.4G

Given difference = 24

So,

$1.4G - G = 24$

$0.4G = 24$

$G = 24 / 0.4$

$G = 60$

Number of boys = $1.4 \times 60 = 84$

Total students = Boys + Girls

= $84 + 60$

= 144

Q18. A man spends 18% of his monthly salary on rent and 22% on food. He spends 25% of the remaining amount on education and 20% of the amount left thereafter on entertainment. If he finally saves Rs 25,920, find his monthly salary.

(a). Rs 54,000

(b). Rs 60,000

(c). Rs 64,000

(d). Rs 72,000

(e). Rs 80,000

Ans.(d)

Sol. Information Given:

Rent = 18%

Food = 22%

Education = 25% of remaining

Entertainment = 20% of remaining thereafter

Savings = Rs.25920

Explanation:

After rent and food

Remaining

= 60%

After education

Remaining

$$=60\% \times 75\% =45\%$$

After entertainment

Remaining

$$=45\% \times 80\% =36\%$$

Thus,

$$36\% \text{ of salary} =25920$$

Salary

$$=25920 \times 100/36 =\text{Rs.}72000$$

Q19. There are 140 cakes in a bucket, and 80 more cakes are added to the bucket. If the cakes are distributed between males and females in the ratio of 7:4, what is the difference between the total number of cakes received by males and females?

(a). 30

(b). 80

(c). 40

(d). 60

(e). 90

Ans.(d)

Sol. Information Given:

Initial cakes = 140

Additional cakes = 80

$$\text{Total cakes} = 140 + 80 = 220$$

Cakes distributed between males and females in ratio = 7 : 4

Need to find: Difference in number of cakes received by males and females

Formula Used:

In a ratio a : b, total parts = a + b

Share of a group = (respective ratio part / total parts) $\times$ total quantity

Difference = Male's share – Female's share

Explanation:

Total = 220, ratio = 7:4

$$\text{Difference} = (7 - 4)/11 \times 220 = 3/11 \times 220 = 60$$

Q20. A man spends 25% of his monthly salary on rent. Out of the remaining amount, he spends 15% on clothes. After that, out of the remaining amount, he spends 20% on traveling. He saves the rest. If his savings amount to Rs. 6,120, find his monthly salary (in Rs).

(a). 17500

(b). 10000

(c). 11500

(d). 14000

(e). 12000

Ans.(e)

Sol. Given:

He spends money in the following sequence:

Rent = 25% of salary

Clothes = 15% of the remaining

Travelling = 20% of the remaining

Saves = Rs. 6,120

Detailed Explanation:

Let monthly salary be Rs x .

After rent $\rightarrow$ remaining = 75% of $x = 0.75x$

After clothes $\rightarrow$ spends 15% of remaining, so keeps 85% of that:

Remaining = $0.75x \times 0.85 = 0.6375x$

After travelling $\rightarrow$ spends 20% of remaining, so keeps 80% of that:

Remaining (savings) = $0.6375x \times 0.80 = 0.51x$

Savings = $0.51x = 6,120$

$$x = \frac{6120}{0.51} = 12,000$$

Q21. A man spends 10% of his monthly income on education. Out of the remaining amount, he spends 20% on food. From the amount left thereafter, he spends 25% on travelling. If he finally saves Rs 32,400, find his monthly income.

(a). Rs 54,000

(b). Rs 60,000

(c). Rs 64,000

(d). Rs 72,000

(e). Rs 80,000

Ans.(b)

Sol. Information Given:

Education = 10%

Food = 20% of remaining

Travelling = 25% of remaining

Savings = Rs. 32,400

Concept/Formula Used:

Successive percentages

Explanation:

After education

= 90%

After food

= $90\% \times 80\%$

= 72%

After travelling

= $72\% \times 75\%$

= 54%

Thus,
54% salary = 32400
Salary
= $32400 \times 100 / 54$
= Rs. 60000

Q22. A man spends 20% of his income on rent and 10% of the remaining amount on groceries. He saves the rest. If his total expenditure (on rent and groceries) is Rs 4200, find the amount he saves (in Rs).

- (a). 9850
- (b). 19200
- (c). 15400
- (d). 12400
- (e). 10800

Ans.(e)

Sol. Information Given in the Question:

Rent = 20% of income
Groceries = 10% of remaining income after rent
Total expenditure = Rs 4,200

Detailed Explanation:

Let income = Rs x
Rent = $0.20x$
Remaining = $0.80x$
Groceries = $0.10 \times 0.80x = 0.08x$
Total Expenditure = $0.20x + 0.08x = 0.28x$

Given:

$$0.28x = 4200$$
$$x = \frac{4200}{0.28} = 15,000$$

Now, Savings = $0.72x$
= $0.72 \times 15000 = \text{Rs } 10,800$

Q23. The monthly income of A is Rs. 50000 and he spends $x\%$ of his monthly income on rent, 20% of the remaining monthly income he spends on his children education and half of the remaining monthly income he spends on travelling. If A saves Rs. 18000, then find amount spends by A on travelling is what percent more than that of on rent.

- (a). 130%
- (b). 260%
- (c). 160%
- (d). 240%
- (e). 360%

Ans.(b)

Sol.

Given, monthly income of A = 50000 Rs.

So, total amount spends by A on Rent = $50000 \times \frac{x}{100} = 500x$ Rs.

Total amount spends by A on children education = $(50000 - 500x) \times \frac{20}{100} = (10000 - 100x)$ Rs.

Saving of A = $50000 - (500x + 10000 - 100x) = (40000 - 400x)$ Rs.

ATQ, $(40000 - 400x) \times \frac{1}{2} = 18000$

$20000 - 200x = 18000$

$200x = 2000$

$x = 10$

Required percentage = $\frac{18000 - 50000 \times \frac{10}{100}}{50000 \times \frac{10}{100}} \times 100 = 260\%$

Q24. A person spends 15% of their monthly income on Education. From the remaining amount, they spend 12x on Groceries and save the rest. If the value of x is 900 and the total savings are Rs. 4,500, find the total monthly income.

(a). 18000

(b). 16000

(c). 17000

(d). 15500

(e). 45000

Ans.(a)

Sol. Information Given in Question:

15% of monthly income is spent on Education

From the remaining amount, 12x is spent on Groceries

$x = 900 \Rightarrow$ Groceries expense = $12 \times 900 = 10800$

Savings = Rs. 4500

Find total monthly income

All Concept/Formula Used in Question:

Remaining after Education = 85% of Income

Remaining amount = Groceries + Savings

Income = Remaining / 0.85

Detailed Explanation:

Let monthly income = I

Education expense = 15% of I

Remaining after Education = 85% of I = 0.85I

Groceries expense = $12x = 12 \times 900 = 10800$

Savings = 4500

So, remaining amount:

$0.85I = 10800 + 4500$

$0.85I = 15300$

$I = 15300 / 0.85$

$I = 15300 \times (100/85)$

$I = 15300 \times (20/17)$

$I = 18000$

Short Trick:

After 15% spent, 85% remains.

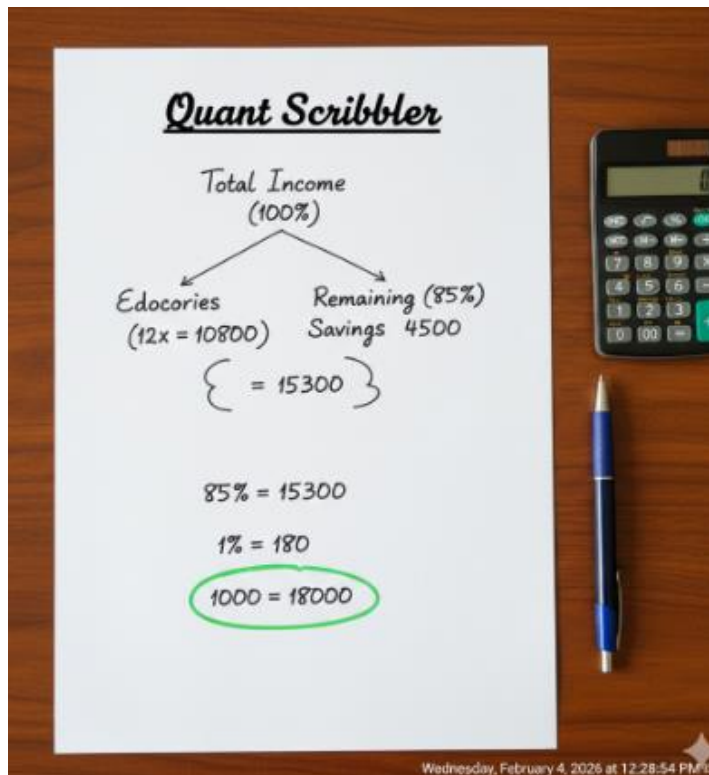
Remaining = Groceries + Savings = $10800 + 4500 = 15300$.

So, Income = $15300 \div 0.85 = 18000$.

Final Answer:

Total monthly income = Rs. 18,000.

Exam Hall Method:



Q25. A person's income is 25% more than his expenditure. If his monthly expenditure is Rs 24,000, then find his monthly savings.

- (a). Rs 5,000
- (b). Rs 5,500
- (c). Rs 6,000
- (d). Rs 6,500
- (e). Rs 7,000

Ans.(c)

Sol. Information Given:

Income is 25% more than expenditure.

Monthly expenditure = Rs. 24,000.

Find the monthly savings.

Concept/Formula Used:

Income = Expenditure $\times (100 + \text{Increase}\%) \div 100$

Savings = Income - Expenditure

Explanation:

Monthly expenditure

= Rs. 24,000

Income is 25% more than expenditure.

Therefore,

Monthly income

= $24,000 \times 125/100$

= Rs. 30,000

Monthly savings

= $30,000 - 24,000$

= Rs. 6,000

Final:

The monthly savings of the person is Rs. 6,000.

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