



Ratio and Proportion Ex 9.1 Q16

Answer :

We have

Weight of zinc : weight of copper = 7 : 9

So, let the weight of zinc in the alloy be '7x' kg and the weight of copper in the alloy be '9x' kg.

But the weight of copper in the alloy is given to be 11.7 kg.

Therefore, $9x = 11.7$

$$x = \frac{11.7}{9} = 1.3$$

Hence, the weight of zinc in the alloy = $7x = 7 \times 1.3 = 9.1$ kg.

Ratio and Proportion Ex 9.1 Q17

Answer :

In a ratio $a : b$, 'a' is known as the antecedent and 'b' is known as the consequent.

In the given ratio, let the antecedent be 7x and the consequent be 8x, respectively,

But consequent = $8x = 40$

$$x = \frac{40}{8} = 5$$

Therefore, the antecedent = $7x = 7 \times 5 = 35$.

Ratio and Proportion Ex 9.1 Q18

Answer :

We have

Sum of the ratio of the terms = $2 + 7 = 9$

Therefore, first part = Rs. $\left(\frac{2}{9} \times 351\right) = \text{Rs. } 78$

Similarly, second part = Rs. $\left(\frac{7}{9} \times 351\right) = \text{Rs. } 273$

Ratio and Proportion Ex 9.1 Q19

Answer :

We have

Cost of 1 score of pencils = Rs. 16

Since 1 score = 20 items,

Cost of one pencil = Rs. $\left(\frac{16}{20}\right) = \text{Rs. } 0.8$

Cost of 1 dozen ball pens = Rs. 8.40

Since 1 dozen = 12 items,

Cost of one ball pen = Rs. $\left(\frac{8.40}{12}\right) = \text{Rs. } 0.7$

So, price of pencil : price of ball pen = $0.8 : 0.7 = \frac{0.8}{0.7} = \frac{8}{7}$

Price of pencil : price of ball pen = $8 : 7$

Ratio and Proportion Ex 9.1 Q20

Answer :

We have

One out of every six student fails, which means that $\frac{1}{6}$ th of the total students fail in the class.

And total number of students in the class = 42.

Therefore, the number of students who fail = $\left(\frac{1}{6} \times 42\right) = 7$.

So, the number of students who pass = (Total students — the number of students who fail) = $42 - 7 = 35$.

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