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Q. no. 6

(A)

In an annual sale, Siama buys a fridge and a freezer. The sale offers 15% off everything and she pays total of 57,120. If the price of freezer before sale is 40,000. What was price of fridge before sale?

Solution:

Original price of freezer = 40,000

Original price of fridge = x

Discount offered on both items = 15%

Discounted price = Original price $\times \left(1 - \frac{15}{100}\right)$

= original price $\times$ 1 - 0.15

= original price $\times$ 0.85

For freezer:

= 40,000 $\times$ 0.85

= 34000

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For Fridge :

$= x \times 0.85 = 0.85x$

Total discounted price :

$34000 + 0.85x = 57,120$

$0.85x = 57,120 - 34000$

$0.85x = 23,120$

$x = \frac{23,120}{0.85}$

$x = 27,200.$

Thus, the original price of fridge before sale is 27,200.

(B)

Ms. Rasheed pays a deposit of 60,000, followed by 36 equal monthly payments. The total amount that he pays is 127% of basic price of 3,360,000. Calculate Rasheed's monthly payment.

Basic price = 3,360,000

Total amount paid = 127% of 3,360,000

Deposit paid = 60,000

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Number of monthly payments = 36

Total amount paid = 127% of 3,360,000

$= \frac{127}{100} \times 3,360,000$

$= 4,207,200$

Monthly payment = $\frac{\text{remaining amount}}{\text{no. of months}}$

$= \frac{4,207,200}{36}$

$= 116,866.67$

(c)

Divide Rs 600 among A, B and C so that Rs. 40 more than $\frac{2}{5}$ of A's share, Rs. 20 more than $\frac{2}{7}$ of B's share and Rs 10 more than $\frac{9}{17}$ of C's share may be equal.

Solution:-

A's share as x

B's share as y

C's share as z

$x + y + z = 600$

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Rs 40 more than $\frac{2}{5}$ of A's share is equal to common value

$$\frac{2}{5}x + 40 = K$$

Rs 20 more than $\frac{2}{7}$ of B's share is equal to same value:

$$\frac{2}{7}y + 20 = K$$

Rs. 10 more than $\frac{9}{17}$ of C's share is equal to same value:

$$\frac{9}{17}z + 10 = K$$

$$\frac{2}{5}x + 40 = K$$

$$\frac{2}{5}x = K - 40$$

$$x = (K - 40)\frac{5}{2}$$

$$\frac{2}{7}y + 20 = K$$

$$\frac{2}{7}y = K - 20$$

$$y = (K - 20) \times \frac{7}{2}$$

$$\frac{9}{17}z + 10 = K$$

$$\frac{9}{17}z = K - 10$$

$$z = (K - 10) \times \frac{17}{9}$$

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$$x + y + z = 600$$

$$\left(\frac{5}{2}\right)(K-40) + \frac{7}{2}(K-20) + \frac{17}{9}(K-10) = 600$$

Taking LCM 18,

Multiplying by 18 on both sides,

$$9 \times 5\frac{(K-40)}{18} + 9 \times 7\frac{(K-20)}{18} + 17 \times 2\frac{(K-10)}{18} = 600$$

$$45\frac{(K-40)}{18} + 63\frac{(K-20)}{18} + 34\frac{(K-10)}{18} = 600$$

$$\frac{1}{18}\{45(K-40) + 63(K-20) + 34(K-10)\} = 600$$

Multiplying by 18 on both sides;

$$18 \times \frac{1}{18}\{45(K-40) + 63(K-20) + 34(K-10)\} = 600 \times 18$$

$$45(K-40) + 63(K-20) + 34(K-10) = 10800$$

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$45K - 1800 + 63K - 1260 + 34K - 346$

$= 10800$

$45K + 63K + 34K = 10800 + 1800 + 1260 + 346$

$142K = 16200$

$K = \frac{16200}{142}$

$K = 100$

Compute x, y, z;

$x = \frac{5}{2}(K - 40) = \frac{5}{2}(100 - 40)$

$x = \frac{5}{2}(60) = 150$

$y = \frac{7}{2}(K - 20) = \frac{7}{2}(100 - 20)$

$y = \frac{7}{2}(80) = 280$

$z = \frac{17}{9}(K - 10) = \frac{17}{9}(100 - 10)$

$z = \frac{17}{9}(90) = 17 \times 10 = 170$

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Find out correct words from jumbled spellings given below;

(i) TEANAIRM
MARINATE

(ii) VAGNACEXETRA
EXTRAVAGANCE

(iii) VADIELTIONC
VALEDICTION

(iv) PKUNYBARTC
BANKRUPTCY

(v) TAESROSNC
ANCESTORS