

Question No 1 Solution:

$$\text{New Balance Formula} = A = P \left(1 + \frac{r}{n} \right)^{nt}$$

$A = \text{Newbalance}$

$P = \text{invest Amount}$

$t = \text{period}$

$n = \text{Number of Time}$

given values

$r = \text{rate}$

$R = \text{Rs.6000}$

$t = 4 \text{ years}$

$n = 12$

$r = 5\%$ which is equal to $= (0.05)$

$A = ?$

$\text{Now putting values in formula}$

$$A = 6000 \left[1 + \frac{0.05}{12} \right]^{(12)(4)}$$

$$= 6000(1 + 0.0042)^{48}$$

$$= 6000(1.0042)^{48}$$

$$= 6000(1.2228)$$

$$= \text{Rs.7336.8}$$

Question No 2 Solution:

total length of segment = 55 inch

Ratio = 2 : 4 : 5

Sum of ratio = 2 + 4 + 5 = 11

Now find longest part

pick the digit highest value in ratio which is 5

Longest part = $\frac{5}{11} \times 55$ – inch

= 5 × 5 – inch

= 25 inch

Question No 3 Solution:

We use here Future value formula which is
$$= C \times \left[\frac{(1+i)^n - 1}{i} \right]$$

Values :

$C = \text{Payment per period} = \text{Rs.}1000$

$i = \text{Interest rate} = 8.5\% = 0.085$

$n = \text{number of payment} = 22$

Putting these value in formula now

$$FV = 1000 \times \left[\frac{(1 + 0.085)^{22} - 1}{0.085} \right]$$

$$= 1000 \times \left[\frac{(1.085)^{22} - 1}{0.085} \right]$$

$$= 1000 \times \left(\frac{6.018 - 1}{0.085} \right)$$

$$= 1000 \times \left(\frac{5.018}{0.085} \right)$$

$$= 1000 \times (59.0353)$$

$$= \text{Rs } 59,035.3$$

$$F.V = \text{Rs.}59,035.3$$