Exercise 1G

Q16

Answer :

Ratio of the read book = $\frac{7}{9}$

Ratio of the unread book = $1 - \frac{7}{9}$

$= \frac{2}{9}$

Let x be the total number of pages in the book.

Thus, we have:

$\frac{2}{9} \times x = 40$

$\Rightarrow x = 40 \div \frac{2}{9}$

$= 40 \times \frac{9}{2}$

$= \frac{40}{1} \times \frac{9}{2}$

$= \frac{40 \times 9}{1 \times 2}$

$= \frac{360}{2}$

$= 180$

Hence, the total number of pages in the book is 180.

Q17

Answer :

Amount of money spent on notebooks = $300 \times \frac{1}{3}$

$$= \frac{300}{1} \times \frac{1}{3}$$
$$= \frac{300}{3}$$
$$= 100$$

∴ Money left after spending on notebooks = $300 - 100$
$$= 200$$

Amount of money spent on stationery items from the remainder = $200 \times \frac{1}{4}$
$$= \frac{200}{1} \times \frac{1}{4}$$
$$= \frac{200}{4}$$
$$= 50$$

∴ Amount of money left with Rita = $200 - 50$
$$= \mathbf{Rs}\ 150$$

Q18

Answer :

Total amount of money Amit earns = Rs 16000

Amount of money spent on food $= 16000 \times \frac{1}{4}$
$$= \frac{16000}{1} \times \frac{1}{4}$$
$$= \frac{16000}{4}$$
$$= \mathbf{Rs}\ 4000$$

∴ Amount of money left after spending on food $= 16000 - 4000$
$$= \mathbf{Rs}\ 12000$$

Amount of money spent on house rent from the remainder $= 12000 \times \frac{3}{10}$
$$= \frac{12000}{1} \times \frac{3}{10}$$
$$= \frac{12000 \times 3}{1 \times 10}$$
$$= \frac{36000}{10}$$
$$= \mathbf{Rs}\ 3600$$

∴ Amount of money left after spending on food and house rent $= 12000 - 3600$
$$= \mathbf{Rs}\ 8400$$

Amount of money spent on children's education from the remainder $= 8400 \times \frac{5}{21}$
$$= \frac{8400}{1} \times \frac{5}{21}$$
$$= \frac{42000}{21}$$
$$= \mathbf{Rs}\ 2000$$

∴ Amount of money left $= 8400 - 2000$
$$= \mathbf{Rs}\ 6400$$

Hence, the amount of money left with Amit is Rs 6400.

Q19

Answer :

Let x be the required number.

We know that $\frac{3}{5}$ of the number exceeds its $\frac{2}{7}$ by 44.

That is,

$$\frac{3}{5} \times x = \frac{2}{7} \times x + 44$$
$$\frac{3}{5} \times x - \frac{2}{7} \times x = 44$$
$$\left(\frac{3}{5} - \frac{2}{7}\right) \times x = 44$$
$$\left(\frac{3}{5} + \text{Additive inverse of } \frac{2}{7}\right) \times x = 44$$
$$\left(\frac{21-10}{35}\right) \times x = 44$$
$$\frac{11}{35} \times x = 44$$
$$x = 44 \div \frac{11}{35}$$
$$= 44 \times \frac{35}{11}$$
$$= \frac{44}{1} \times \frac{35}{11}$$
$$= \frac{44 \times 35}{1 \times 11}$$
$$= \frac{1540}{11}$$
$$= 140$$

Q20

Answer :

Ratio of spectators in the open $= 1 - \frac{2}{7}$

$$= \frac{5}{7}$$

Total number of spectators in the open = x

Then, $\frac{5}{7} \times x = 15000$

$$\Rightarrow x = 15000 \div \frac{5}{7}$$
$$= 15000 \times \frac{7}{5}$$
$$= \frac{15000}{1} \times \frac{7}{5}$$
$$= \frac{15000 \times 7}{1 \times 5}$$
$$= \frac{10500}{5}$$
$$= 21000$$

Hence, the total number of spectators is 21,000

********** END **********