Exercise 2C

Sol.1. Total length of road needed to repaired = 440 m

Road repaired after 3 days = $\dfrac{3}{4}$ of a total

$$= \dfrac{3}{4} \times \overset{110}{\cancel{440}} = 330m$$

Road left unrepaired = $440 - \overset{1}{330} = 110$ m

Sol2. Total students = 48

Number of students who watch TV = $\dfrac{1}{4}$ of a total

$$= \dfrac{1}{\underset{1}{\cancel{4}}} \times \overset{12}{\cancel{48}} = 12 \text{ students}$$

Number of students who don't watch TV = $48 - 12 = 36$ students

Sol3. Collection of Pranav's stamp = 320

Raghav's collection of stamp = $3\dfrac{3}{4}$ of a pranav's stamp

$$= \dfrac{15}{\underset{1}{\cancel{4}}} \times \overset{80}{\cancel{320}} = 1200 \text{ stamps}$$

Sol4. Total fruits with fruit seller = 6 dozens = 6 x 12 =72

Number of apples = $\dfrac{1}{3}$ of a total

$$= \dfrac{1}{\underset{1}{\cancel{3}}} \times \overset{24}{\cancel{72}} = 24$$

Number of oranges = $\dfrac{1}{4}$ of a total

$$= \dfrac{1}{\underset{1}{\cancel{4}}} \times \overset{18}{\cancel{72}} = 18$$

Number of bananas = 72 − (24 + 18)

$$= 72 - 42 = 30 \text{ bananas} = 2\frac{1}{2} \text{ dozens}$$

Sol 5. Length of green ribbon = 12 m 50cm = $12\frac{1}{2}$ m = $\frac{25}{2}$ m

Length of red ribbon = $\frac{3}{5}$ of a green ribbon

$$= \frac{3}{\cancel{5}_1} \times \frac{\cancel{25}^5}{2} = \frac{15}{2} \text{ m}$$

Therefore, Length of yellow ribbon = $2\frac{1}{2}$ times red ribbon

$$= \frac{5}{2} \times \frac{15}{2} = \frac{75}{4} = 18\frac{3}{4} \text{ m}$$

Sol 6. Total people = 1800

Number of men = $\frac{7}{18}$ of 1800 $= \frac{7}{\cancel{18}_1} \times \cancel{1800}^{100} = 700$

Number of women = $\frac{11}{24}$ of 1800 $= \frac{11}{\cancel{24}_1} \times \cancel{1800}^{75} = 825$

Therefore number of children $= 1800 - (700 + 825)$

$$= 1800 - 1525 = 275$$

$$\text{Fraction} = \frac{\cancel{275}^{11}}{\cancel{1800}_{72}} = \frac{11}{72}$$

Sol 7 Let fraction be x

$$\text{Sum of fraction} = \frac{16}{3} + \frac{19}{3} = \frac{35}{3}$$

$$\text{ATQ} = x \times \frac{35}{3} = 3$$

$$x = 3 \times \frac{3}{35} = \frac{9}{35}$$

Sol 8 Let the fraction be x

$$x \div \left(\frac{1}{2} - \frac{1}{6} \right) = \frac{2}{3}$$

$$x \div \left(\frac{3-1}{6} \right) = \frac{2}{3}$$

$$x \div \left(\frac{2}{6} \right) = \frac{2}{3}$$

$$x \div \left(\frac{1}{3} \right) = \frac{2}{3}$$

$$x = \frac{2}{3} \times \frac{1}{3}, \quad x = \frac{2}{9}$$

Sol . 9 Let total passengers be x

Children = 40

$$\frac{1}{8} \text{ of } x = 40$$

$$X = 40 \times 8$$

$$X = 320$$

Adults = 320 – 40 = 280

Sol 10. Let the flowers be x

Roses = $\frac{13}{30}$ x

Orchids = $\frac{2}{5}$ x

Gladioli = 7

ATQ $\frac{13}{30}$ x $+ \frac{2}{5}$ x + 7 = x

$$\frac{13x + 12x + 210}{30} = X$$

$13x + 12x + 210 = 30x$

$25x + 210 = 30x$

$30x - 25x = 210$

$5x = 210$

$x = \frac{210}{5}$. x = 42 flowers

Sol 11 Let Jimmy's ticket be x

Ankitesh ticket = $1\frac{3}{8}x = \frac{11}{8}x$

Total tickets = 3800

ATQ

$x + \frac{11}{8}x = 3800$

$\frac{8x + 11x}{8} = 3800$

$\frac{19}{8}x = 3800$

$X = \overset{200}{\cancel{3800}} \times \frac{8}{\underset{1}{\cancel{19}}}$

X = 1600

Jimmy's tickets = 1600

Ankitesh's tickets = 3800 – 1600 = 2200