

Ex-22(A)

1. Solve:

(i) $x + 2 = 6$

$\Rightarrow x = 6 - 2$

$\Rightarrow x = 4$

(ii) $x + 6 = 2$

$\Rightarrow x = 2 - 6$

$\Rightarrow x = -4$

(iii) $y + 8 = 5$

$\Rightarrow y = 5 - 8$

$\Rightarrow y = -3$

(iv) $x + 4 = -3$

$\Rightarrow x = -3 - 4$

$\Rightarrow x = -7$

(v) $y + 2 = -8$

$\Rightarrow y = -8 - 2$

$\Rightarrow y = -10$

(vi) $b + 2.5 = 4.2$

$\Rightarrow b = 4.2 - 2.5$

$\Rightarrow b = 1.7$

$$\begin{array}{r} 4.2 \\ - 2.5 \\ \hline 1.7 \end{array}$$

(vii) $p + 4.6 = 8.5$

$\Rightarrow p = 8.5 - 4.6$

$\Rightarrow p = 3.9$

$$\begin{array}{r} 8.5 \\ - 4.6 \\ \hline 3.9 \end{array}$$

(viii) $y + 3.2 = -6.5$

$$\Rightarrow y = -6.5 - 3.2$$

$$= y = -9.7$$

$$\begin{array}{r} -6.5 \\ -3.2 \\ \hline -9.7 \end{array}$$

$$(ix) a + 8.9 = -12.6$$

$$\Rightarrow a = -12.6 - 8.9$$

$$\Rightarrow a = \cancel{-3.7} - 21.5$$

$$\begin{array}{r} 0 \quad 1 \quad 16 \\ -12.6 \\ -8.9 \\ \hline -21.5 \end{array}$$

$$\begin{array}{r} 0 \quad 0 \\ -12.6 \\ -8.9 \\ \hline -21.5 \end{array}$$

$$(x) x + 2\frac{1}{3} = 5$$

$$= x + \frac{7}{3} = 5$$

$$= x = 5 - \frac{7}{3} = \frac{5}{1} - \frac{7}{3}$$

$$= \frac{15-7}{3} = \frac{8}{3} = 2\frac{2}{3}$$

$$(xi) z + 2 = 4\frac{1}{5}$$

$$\Rightarrow z + 2 = \frac{21}{5}$$

$$\Rightarrow z = \frac{21}{5} - \frac{2}{1}$$

$$\Rightarrow \frac{21-10}{5} = \frac{11}{5} = 2\frac{1}{5}$$

$$(xii) m + 3\frac{1}{2} = 4\frac{1}{4}$$

$$\Rightarrow m + \frac{7}{2} = \frac{17}{4}$$

$$\Rightarrow m = \frac{17}{4} - \frac{7}{2}$$

$$\Rightarrow \frac{17-14}{4} = \frac{3}{4}$$

$$(xiii) x + 2 = 1\frac{1}{4}$$

$$= x + 2 = \frac{5}{4}$$

$$\Rightarrow x = \frac{5}{4} - \frac{2}{1}$$

$$\Rightarrow \frac{5-8}{4} = \frac{-3}{4}$$

$$\Rightarrow x = \frac{-3}{4}$$

$$(xiv) y + 5\frac{1}{3} = 4$$

$$= y + \frac{16}{3} = 4$$

$$\Rightarrow y = \frac{4}{1} - \frac{16}{3}$$

$$\Rightarrow \frac{12-16}{3} = \frac{-4}{3} = -1\frac{1}{3}$$

$$\Rightarrow y = -1\frac{1}{3}$$

$$(xv) a + 3\frac{1}{5} = 1\frac{1}{2}$$

$$= a + \frac{16}{5} = \frac{3}{2}$$

$$\Rightarrow a = \frac{3}{2} - \frac{16}{5} \quad (\text{LCM}=10)$$

$$\Rightarrow \frac{15-32}{10} = \frac{-17}{10} = -1\frac{7}{10}$$

2. Solve!

$$(i) x - 3 = 2$$

$$\Rightarrow x = 2 + 3$$

$$\Rightarrow x = 5$$

$$(ii) m - 2 = -5$$

$$\Rightarrow m = -5 + 2$$

$$\Rightarrow m = -3$$

$$(iii) b - 5 = 7$$

$$\Rightarrow b = 7 + 5$$

$$\Rightarrow b = 12$$

$$(iv) a - 2.5 = -4$$

$$\Rightarrow a = -4 + 2.5$$

$$\Rightarrow a = -1.5$$

$$(v) y - 3\frac{1}{2} = 6$$

$$\Rightarrow y = 6 + 3\frac{1}{2}$$

$$\Rightarrow y = \frac{6}{1} + \frac{7}{2}$$

$$= \frac{12 + 7}{2} = \frac{19}{2} = 9\frac{1}{2}$$

$$(vi) z - 2\frac{1}{3} = -6$$

$$\Rightarrow z = -6 + 2\frac{1}{3}$$

$$\Rightarrow z = -6 + \frac{7}{3}$$

$$\Rightarrow z = \frac{-6}{1} + \frac{7}{3}$$

$$\Rightarrow z = \frac{18}{3} - \frac{7}{3} = \frac{11}{3} = 3\frac{2}{3}$$

$$\begin{aligned} \text{(vii)} \quad p - 5.4 &= 2.7 \\ &= p = 2.7 + 5.4 \\ &= p = 8.1 \end{aligned}$$

$$\begin{aligned} \text{(viii)} \quad x - 1.5 &= -4.9 \\ &= x = -4.9 + 1.5 \\ &= x = -3.4 \end{aligned}$$

$$\begin{aligned} \text{(ix)} \quad n - 4 &= -4 \frac{1}{5} \\ &= n = -4 \frac{1}{5} + 4 \\ &= n = \frac{-21}{5} + 4 \\ &= \frac{-21}{5} - \frac{4}{1} \\ &= \frac{-21 - 20}{5} = \frac{-41}{5} = -8 \frac{1}{5} \end{aligned}$$

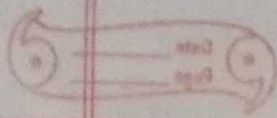
(10) Solve:

$$\begin{aligned} \text{(i)} \quad 3x &= 12 \\ &= x = \frac{12}{3} = 4 \\ &= x = 4 \end{aligned}$$

$$\begin{aligned} \text{(ii)} \quad 2y &= 9 \\ &= y = \frac{9}{2} = 4.5 \end{aligned}$$

$$\begin{aligned} \text{(iii)} \quad 5z &= 8.5 \\ &= z = \frac{8.5}{5} \\ &= z = 1.7 \end{aligned}$$

$$\begin{aligned} \text{(iv)} \quad 2.5m &= 7.5 \\ &\Rightarrow m = \frac{7.5}{2.5} \\ &\Rightarrow m = 3.0 \text{ or } 3 \end{aligned}$$



$$(v) 3 \cdot 2p = 16$$

$$\Rightarrow p = \frac{16}{3 \cdot 2}$$

$$\Rightarrow p = 5$$

$$(vi) 2a = 4 \cdot 6$$

$$\Rightarrow a = \frac{2}{4 \cdot 6} \text{ or } \frac{4 \cdot 6}{2}$$

$$\Rightarrow a = 2 \cdot 3$$

$$\begin{array}{r} 2 \cdot 3 \\ 2 \overline{) 4 \cdot 6} \\ \underline{- 4} \downarrow \\ 06 \\ \underline{= 6} \\ 0 \end{array}$$

(vii)

4. Solve:

$$(i) \frac{x}{2} = 5$$

$$= x = 5 \times 2$$

$$= x = 10$$

$$(ii) \frac{y}{3} = 2$$

$$= y = 3 \times 2$$

$$= y = 6$$

$$(iii) \frac{a}{5} = -15$$

$$= a = -15 \times 5$$

$$= a = -75$$

$$(iv) \frac{z}{4} = 3 \frac{1}{4}$$

$$= z = 3 \frac{1}{4} \times 4$$

$$= z = \frac{13}{4} \times \frac{4}{1} = \frac{52}{4} = 13$$

$$(v) \frac{m}{6} = 2\frac{1}{2}$$

$$= m = \left(2\frac{1}{2} \times 6\right) = \frac{5}{2} \times \frac{6}{1}$$

$$= \frac{30}{2} = 15$$

$$(vi) \frac{n}{7} = -2.8$$

$$= n = -2.8 \times 7$$

$$= n = -19.6$$

(vii) Solve:

$$(i) -2x = 8$$

$$\Rightarrow x = \frac{8}{-2} = -4$$

$$\Rightarrow x = \frac{8}{-2} = -4$$

$$\Rightarrow x = -4$$

$$(ii) -3.5y = 14$$

$$\Rightarrow y = \frac{14}{-3.5} = -4$$

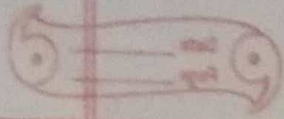
$$\Rightarrow y = \frac{-14}{3.5} = -2 \times 2 = -4$$

$$(iii) -5z = 4$$

$$z = \frac{4}{-5} = -0.8$$

$$(iv) -5 = a + 3$$

$$\Rightarrow a = -5 - 3 = -8$$



$$(v) p = p + 5$$

$$p = 2 - 5 = -3$$

$$(vi) 4.5 = m - 2.7$$

$$\Rightarrow m = 4.5 + 2.7 = 7.2$$

$$(vii) 8 \frac{2}{5} = x - 2 \frac{1}{3}$$

$$\frac{17}{5} = x - \frac{7}{3}$$

$$x = \frac{17}{5} + \frac{7}{3}$$

$$x = \frac{51 + 35}{15} = \frac{86}{15} = 5 \frac{11}{15}$$

$$(viii) 5 = m + 8 \frac{4}{7}$$

$$\Rightarrow 5 = m + \frac{25}{7}$$

$$m = 5 - \frac{25}{7} = \frac{35 - 25}{7} = \frac{10}{7} = 1 \frac{3}{7}$$

$$(ix) -2 \frac{1}{5} = y - 4$$

$$\Rightarrow -\frac{11}{5} = y - 4$$

$$\Rightarrow y = \frac{-11}{5} + 4 = \frac{-11 + 20}{5} = \frac{9}{5} = 1 \frac{4}{5}$$