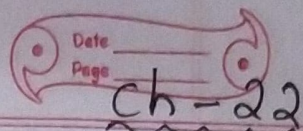


18.8.21

19

# SIMPLE (Linear) EQUATIONS



## Ex - 22 (A)

1. Solve :

$$i) x + 2 = 6$$

$$\Rightarrow x = 6 - 2 = 4$$

$$\Rightarrow x = 4$$

$$ii) x + 6 = 2$$

$$\Rightarrow x = 2 - 6$$

$$\Rightarrow x = -4$$

$$iii) y + 8 = 5$$

$$\Rightarrow y = 5 - 8$$

$$\Rightarrow y = -3$$

$$iv) x + 4 = -3$$

$$\Rightarrow x = -3 - 4$$

$$\Rightarrow x = -7$$

$$v) y + 2 = 8$$

$$\Rightarrow y = 8 - 2$$

$$\Rightarrow y = 6$$

$$vi) b + 2.5 = 4.2$$

$$\Rightarrow b = 4.2 - 2.5$$

$$\Rightarrow b = 1.7$$

$$vii) p + 4.6 = 8.5$$

$$\Rightarrow p = 8.5 - 4.6$$

$$\Rightarrow p = 3.9$$

$$viii) y + 3.2 = -6.5$$

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

$$\Rightarrow y = -9.7$$

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

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

$$\Rightarrow a = -21.5$$

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

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

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

$$\Rightarrow x = \frac{15 - 7}{3}$$

$$\Rightarrow x = \frac{8}{3} = 2\frac{2}{3}$$

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

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

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

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

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

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

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

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

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

$$\Rightarrow m = \frac{3}{4}$$

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

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

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

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

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

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

$$\Rightarrow y = \frac{12 - 16}{3}$$

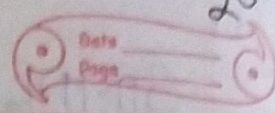
$$\Rightarrow y = -\frac{4}{3} = -1\frac{1}{3}$$

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

$$\Rightarrow a = \frac{3}{2} - \frac{16}{5}$$

$$\Rightarrow a = \frac{15 - 32}{10}$$

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



### 2. Solve :

$$\begin{aligned} \text{i)} \quad x - 3 &= 2 \\ \Rightarrow x &= 2 + 3 \\ \Rightarrow x &= 5 \end{aligned}$$

$$\begin{aligned} \text{ii)} \quad m - 2 &= -5 \\ \Rightarrow m &= -5 + 2 \\ \Rightarrow m &= -3 \end{aligned}$$

$$\begin{aligned} \text{iii)} \quad b - 5 &= 7 \\ \Rightarrow b &= 7 + 5 \\ \Rightarrow b &= 12 \end{aligned}$$

$$\begin{aligned} \text{iv)} \quad a - 2 \cdot 5 &= -4 \\ \Rightarrow a &= -4 + 2 \cdot 5 \\ \Rightarrow a &= -4 + 10 \\ \Rightarrow a &= 6 \end{aligned}$$

$$\begin{aligned} \text{v)} \quad y - 3 \frac{1}{2} &= 6 \\ \Rightarrow y - \frac{7}{2} &= 6 \\ \Rightarrow y &= 6 + \frac{7}{2} \\ \Rightarrow y &= \frac{12}{2} + \frac{7}{2} \\ \Rightarrow y &= \frac{19}{2} = 9 \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \text{vi)} \quad z - 2 \frac{1}{3} &= -6 \\ \Rightarrow z &= -6 + \frac{7}{3} \\ \Rightarrow z &= \frac{-18}{3} + \frac{7}{3} \\ \Rightarrow z &= \frac{-11}{3} = -3 \frac{2}{3} \end{aligned}$$

$$\begin{aligned} \text{vii)} \quad p - 5 \cdot 4 &= 2 \cdot 7 \\ \Rightarrow p &= 2 \cdot 7 + 5 \cdot 4 \\ \Rightarrow p &= 14 + 20 \\ \Rightarrow p &= 34 \end{aligned}$$

$$\begin{aligned} \text{viii)} \quad x - 1 \cdot 5 &= -4 \cdot 9 \\ \Rightarrow x &= -4 \cdot 9 + 1 \cdot 5 \\ \Rightarrow x &= -36 + 5 \\ \Rightarrow x &= -31 \end{aligned}$$

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

### 3. Solve :

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

$$\begin{aligned} \text{ii)} \quad 2y &= 9 \\ \Rightarrow y &= \frac{9}{2} \\ \Rightarrow y &= 4 \frac{1}{2} \end{aligned}$$

$$\begin{aligned} \text{iii)} \quad 5z &= 8 \cdot 5 \\ \Rightarrow z &= \frac{8 \cdot 5}{5} \\ \Rightarrow z &= 8 \end{aligned}$$

$$\begin{aligned} \text{iv)} \quad 2 \cdot 5m &= 7 \cdot 5 \\ \Rightarrow m &= \frac{7 \cdot 5}{2 \cdot 5} = 3 \end{aligned}$$

$$\begin{aligned} \text{v)} \quad 3 \cdot 2p &= 16 \\ \Rightarrow p &= \frac{16}{3 \cdot 2} \\ \Rightarrow p &= \frac{8}{3} \end{aligned}$$

$$\begin{aligned} \text{vi)} \quad 3 \cdot 2p &= 16 \\ \Rightarrow p &= \frac{16}{3 \cdot 2} \\ \Rightarrow p &= \frac{16}{6} \times 10 = 26 \frac{2}{3} \end{aligned}$$

$$vii) 2a = 4.6$$

$$\Rightarrow a = \frac{4.6}{2}$$

$$\Rightarrow a = 2.3$$

4. Solve :

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

$$\Rightarrow x = 5 \times 2$$

$$\Rightarrow x = 10$$

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

$$\Rightarrow y = -2 \times 3$$

$$\Rightarrow y = -6$$

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

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

$$\Rightarrow a = -75$$

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

$$\Rightarrow \frac{z}{4} = \frac{13}{4}$$

$$\Rightarrow z = \frac{13}{4} \times 4$$

$$\Rightarrow z = 13$$

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

$$\Rightarrow \frac{m}{6} = \frac{5}{2}$$

$$\Rightarrow m = \frac{5}{2} \times 6$$

$$\Rightarrow m = 15$$

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

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

$$\Rightarrow n = -19.6$$

5. Solve :

$$i) -2x = 8$$

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

$$ii) -3.5y = 14$$

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

$$\Rightarrow y = \frac{-14 \times 10}{35} = -4$$

$$iii) -5z = 4$$

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

$$\Rightarrow z = -0.8$$

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

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

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

$$\Rightarrow a = -8$$

$$v) 2 = p + 5$$

$$\Rightarrow p + 5 = 2$$

$$\Rightarrow p = 2 - 5$$

$$\Rightarrow p = -3$$

$$vi) 4.5 = m - 2.7$$

$$\Rightarrow m - 2.7 = 4.5$$

$$\Rightarrow m = 4.5 + 2.7$$

$$\Rightarrow m = 7.2$$

$$\text{vii)} \quad 3\frac{2}{5} = x - 2\frac{1}{3}$$

$$\Rightarrow x - 2\frac{1}{3} = 3\frac{2}{5}$$

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

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

$$\Rightarrow x = \frac{51 + 35}{15}$$

$$\Rightarrow x = \frac{86}{15} = 5\frac{11}{15}$$

$$\text{viii)} \quad 5 = m + 3\frac{4}{7}$$

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

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

$$\Rightarrow m = \frac{35 - 25}{7}$$

$$\Rightarrow m = \frac{10}{7}$$

$$\Rightarrow m = 1\frac{3}{7}$$

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

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

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

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

$$\Rightarrow y = \frac{9}{5} = 1\frac{4}{5}$$