

H.W
19/08/21

Exercise - 22 (A)

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(Sanku)

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$$\begin{aligned} 1) \quad & x + 2 = 6 \\ & = x + 2 - 2 = 6 - 2 \\ & = x = 4 \end{aligned}$$

Subtracting 2 from both sides.

$$\begin{aligned} \text{ii) } & x + 6 = 2 \\ & = x + 6 - 6 = 2 - 6 \\ & \Rightarrow x = -4 \end{aligned}$$

$$\begin{aligned} \text{iii) } & y + 8 = 5 \\ & \Rightarrow y + 8 - 8 = 5 - 8 \\ & \Rightarrow y = -3 \end{aligned}$$

$$\begin{aligned} \text{iv) } & x + 4 = -3 \\ & \Rightarrow x + 4 - 4 = -3 - 4 \\ & \Rightarrow x = -7 \end{aligned}$$

$$\begin{aligned} \text{v) } & y + 2 = -8 \\ & \Rightarrow y + 2 - 2 = -8 - 2 \\ & \Rightarrow y = -10 \end{aligned}$$

$$\begin{aligned} \text{vi) } & b + 2.5 = 4.2 \\ & \Rightarrow b + 2.5 - 2.5 = 4.2 - 2.5 \\ & \Rightarrow b = 1.7 \end{aligned}$$

$$\begin{aligned} \text{vii) } & p + 4.6 = 8.5 \\ & \Rightarrow p + 4.6 - 4.6 = 8.5 - 4.6 \\ & \Rightarrow p = 3.9 \end{aligned}$$

$$\begin{aligned} \text{viii) } & y + 3.2 = -6.5 \\ & \Rightarrow y + 3.2 - 3.2 = -6.5 - 3.2 \\ & \Rightarrow y = -9.7 \end{aligned}$$

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$$\begin{aligned} \text{ix) } a + 8.9 &= -12.6 \\ \Rightarrow a + \cancel{8.9} - \cancel{8.9} &= -12.6 - 8.9 \\ \Rightarrow a &= -21.5 \end{aligned}$$

$$\begin{aligned} \text{xv) } a + \frac{16}{5} &= \frac{3}{2} \\ \Rightarrow a + \frac{16}{5} - \frac{16}{5} &= \frac{3}{2} - \frac{16}{5} \end{aligned}$$

$$\begin{aligned} \text{x) } x + 2\frac{1}{3} &= 5 \\ \Rightarrow x + \cancel{2\frac{1}{3}} - \cancel{2\frac{1}{3}} &= 5 - 2\frac{1}{3} \\ \Rightarrow x &= \frac{8}{3} = 2\frac{2}{3} \end{aligned}$$

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

$$\begin{aligned} \text{xi) } z + 2 &= 4\frac{1}{5} \\ \Rightarrow z + 2 &= \frac{21}{5} \end{aligned}$$

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

$$\Rightarrow z = \frac{11}{5}$$

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

$$\Rightarrow m + \cancel{3\frac{1}{2}} - \cancel{3\frac{1}{2}} = 4\frac{1}{4} - 3\frac{1}{2}$$

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

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

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

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

$$\Rightarrow x = \frac{5}{4} - 2 = \frac{-3}{4}$$

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

$$\Rightarrow y + \cancel{5\frac{1}{3}} - \cancel{5\frac{1}{3}} = 4 - 5\frac{1}{3}$$

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

$$2. \text{ i) } x - 3 = 2$$

$$\Rightarrow x - 3 + 3 = 2 + 3$$

$$\Rightarrow x = 2 + 3 = 5$$

$$\text{ (ix) } n - 4 = 4$$

$$\Rightarrow n - 4 + 4 = 4 + 4$$

$$\Rightarrow n = 8$$

$$\text{ ii) } m - 2 = -5$$

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

$$\Rightarrow m = -3$$

$$\text{ iii) } b - 5 = 7$$

$$\Rightarrow b - 5 + 5 = 7 + 5$$

$$\Rightarrow b = 12$$

$$\text{ iv) } a - 2.5 = -4$$

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

$$\Rightarrow a = -1.5$$

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

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

$$\Rightarrow y = \frac{6}{1} + \frac{7}{2} = \frac{12 + 7}{2} = \frac{19}{2}$$

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

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

$$\Rightarrow z = -6 + 7 = +1$$

$$\text{ (vii) } p - 5.4 = 2.7$$

$$\Rightarrow p - 5.4 + 5.4 = 2.7 + 5.4$$

$$\Rightarrow p = 8.1$$

$$\text{ (viii) } x - 1.5 = 4.9$$

$$\Rightarrow x - 1.5 + 1.5 = 4.9 + 1.5$$

$$\Rightarrow x = 6.4$$

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i) $3x = 12$
 $\Rightarrow x = \frac{12}{3}$
 $\Rightarrow x = 4$

ii) $2y = 9$
 $\Rightarrow y = \frac{9}{2}$

iii) $5z = 8.5$
 $\Rightarrow z = \frac{8.5}{5}$
 $\Rightarrow z = 1.7$

iv) $2.5m = 7.5$
 $\Rightarrow \frac{2.5m}{2.5} = \frac{7.5}{2.5}$
 $\Rightarrow m = 3$

v) $3.2p = 16$
 $\Rightarrow p = \frac{16}{3.2}$
 $\Rightarrow p = \frac{1}{2}$

vi) $2a = 4.6$
 $\Rightarrow a = \frac{4.6}{2}$
 $\Rightarrow a = 2.3$

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$$4.1) \frac{x}{2} = 5$$

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

$$\Rightarrow x = 10$$

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

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

$$\Rightarrow y = -6$$

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

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

$$\Rightarrow a = -75$$

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

$$\Rightarrow z = 4 \times 3 \frac{1}{4} = 4 \times \frac{13}{4}$$

$$\Rightarrow z = 52 \div 4 = 13$$

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

$$\Rightarrow m = 6 \times 2 \frac{1}{2} = 6 \times \frac{5}{2}$$

$$\Rightarrow m = 30 \div 2 = 15$$

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

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

$$\Rightarrow n = -19.6$$

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$$5. i) -2x = 8$$

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

$$\Rightarrow x = -4$$

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

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

$$\Rightarrow m =$$

$$ii) -3 \cdot 5y = 14$$

$$\Rightarrow y = \frac{14}{-3 \cdot 5}$$

$$iii) -5z = 4$$

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

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

$$\Rightarrow \cancel{a} = \frac{-5}{-5}$$

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

$$\Rightarrow -7 = a$$

$$v) 2 = p + 5$$

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

$$\Rightarrow -3 = p$$

$$vi) 4 \cdot 5 = m - 2 \cdot 7$$

$$\Rightarrow 4 \cdot 5 + 2 \cdot 7 = m$$

$$\Rightarrow 7 \cdot 2 = m$$

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

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

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

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

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

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

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

$$\Rightarrow 5 - 2 \frac{5}{7} = m$$

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

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

$$\Rightarrow m = \frac{10}{7} = 1 \frac{3}{7}$$

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

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

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

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

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

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

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