

H.W
27-08-21

Homework

ch-22

Simple linear equations

(Ex-22-A)

Exercise-22(A)

1. Solve:

(i) $x + 2 = 6$

~~Ans~~ $\Rightarrow x + 2 = 6$

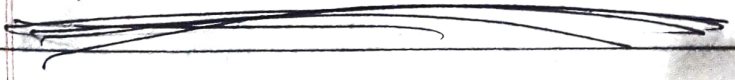
So we have to do only the variable.

$(x) + 2 = 6$

$\Rightarrow x + 2 = 6 - 2$

$\Rightarrow x + 2 = 4$

$\Rightarrow x = 4$



~~10x + 1 = 2~~

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$$(vi) P + 4.6 = 8.5$$

$$\Rightarrow P + 4.6 = 8.5 - 4.6$$

$$\Rightarrow P + 4.6 - 4.6 = 8.5 - 4.6$$

$$\Rightarrow P = 3.9$$

$$(vii) y + 3.2 = -6.5$$

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

$$\Rightarrow y = -9.7$$

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

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

$$\Rightarrow a = -21.5$$

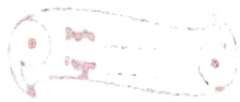
~~$$(x) x + 2\frac{1}{3} = 5$$~~

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

~~$$\Rightarrow 2\frac{1}{3} = 7$$~~

~~$$\Rightarrow x + 7 = 5 - 7$$~~

~~$$\Rightarrow x = -2$$~~



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

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

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

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

$$5 - 2\frac{1}{3} = 12 - 7 = 5$$

$$\Rightarrow 2\frac{1}{3} = \frac{7}{3}$$

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

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

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

$$\Rightarrow z + \text{~~2~~$$

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

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

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

$$\Rightarrow \text{Ans} - m = \frac{3}{4}$$

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

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

$$\text{Ans} - x = -\frac{3}{4}$$

$$\text{(XIV)} \quad 1 + \frac{1}{3} = 1$$

$$\Rightarrow 1 + \frac{1}{3} = 1$$

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

$$\text{(XV) Ans} = a + 3\frac{1}{5} = 1\frac{1}{2}$$

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

$$\Rightarrow a = \frac{3}{10}$$

2. Solve

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

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

$$\Rightarrow x - 3 = 5$$

$$\Rightarrow x = 5$$

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

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

$$\Rightarrow m = 6 - 3$$

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

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

$$\Rightarrow b - 5 = 12$$

$$\Rightarrow b = 12$$

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

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

$$\Rightarrow a = -1.5$$

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

$$\Rightarrow \frac{y - \frac{7}{2}}{2} = 6$$

$$\Rightarrow y = 9\frac{1}{2}$$

$$(vii) z = 2\frac{1}{2} \quad 6$$

$$z = \frac{7}{2} = 6$$

$$z = \frac{13}{2}$$

$$(viii) P - 5.4 = 2.7$$

$$\Rightarrow P - 5.4 = 2.7$$

$$\Rightarrow P = \frac{54}{10} + \frac{27}{10}$$

$$\Rightarrow P = 8.1$$

$$(viii) x - 1.5 = -4.9$$

$$\Rightarrow x - \frac{15}{10} = -\frac{49}{10}$$

$$\Rightarrow x = -3.4$$

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

$$\Rightarrow n - 4 = -\frac{21}{5}$$

$$\Rightarrow n = -\frac{1}{5}$$

3. Solve:

$$(i) 3x = 12$$

$$\Rightarrow 3x = 12$$

$$\Rightarrow x = \frac{12}{3}$$

$$\Rightarrow x = 4$$

$$(ii) 2y = 9$$

$$\Rightarrow 2y = 9$$

$$\Rightarrow y = \frac{9}{2} = 4.5$$

$$\Rightarrow y = 4.5$$

$$(iii) 5z = 8.5$$

$$\Rightarrow z = 8.5 \div 5 = \frac{85}{10} \div \frac{5}{1} = \frac{85}{10} \times \frac{1}{5} = \frac{17}{10} = 1.7$$

$$\Rightarrow z = 1.7$$

$$(iv) 2.5m = 7.5$$

~~$$2.5m = 7.5m$$~~

$$\Rightarrow m = 7.5 \div 2.5$$

$$\Rightarrow m = \frac{75}{10} \div \frac{25}{10} = \frac{75}{10} \times \frac{10}{25} = m = 3$$

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

$$\Rightarrow p = 16 \div 3 \cdot 2$$

$$\Rightarrow p = \frac{16}{1} \div \frac{3 \cdot 2}{10}$$

$$\Rightarrow p = \frac{16}{1} \times \frac{10}{3 \cdot 2} = 15$$

$$\Rightarrow p = 5$$

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

$$\Rightarrow 2a = 4 \cdot 6 \div 2$$

$$\Rightarrow a = \frac{4 \cdot 6}{10} \div \frac{2}{1}$$

$$\Rightarrow a = \frac{4 \cdot 6}{10} \times \frac{1}{2}$$

$$\Rightarrow \frac{23}{10} = 2.3$$

$$\Rightarrow 2.3 a = 2.3$$

4. Solve

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

$$\Rightarrow x \cdot 2 = 5 \cdot 2 \quad x = 2 \cdot 5$$

$$\Rightarrow x = 10$$

Date _____
Page _____

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

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

$$\Rightarrow y = -6$$

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

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

$$\Rightarrow a = -75$$

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

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

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

$$\Rightarrow z = 13$$

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

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

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

$$\text{Ans} = m = 15$$

$$\Rightarrow m = \frac{6}{1} \times \frac{5}{2} = 15$$



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

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

$$\Rightarrow n = 7 \times \frac{-28}{10}$$

$$\Rightarrow n = \frac{7}{1} \times \frac{-28}{10} = \frac{-196}{10}$$

$$\Rightarrow n = -1.96$$

5. Solve:

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

~~$\Rightarrow x = 2.8$~~

~~$\Rightarrow -2x = 8$~~

~~$\Rightarrow x = 8 - (-2)$~~

~~$\Rightarrow x = 8 + 2$~~

~~$\Rightarrow x = 10$~~

(ii) $-2x = 8$

$$\Rightarrow x = 8 \div (-2)$$

$$\Rightarrow x = -4$$

$$1. 5 = a + 3$$

$$> -5 + 5 = a + 3 + 5$$

$$> 0 = a + 8$$

$$> a = -8$$

$$2 = p + 5$$

$$> 2 + 2 = p + 5 (-2)$$

$$> 0 = p + 3$$

$$> p = -3$$

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

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

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

$$\Rightarrow 0 = m + 7.2 \quad \text{as } \begin{array}{r} 4.5 \\ + 2.7 \\ \hline 7.2 \end{array}$$

$$\Rightarrow m = 7.2$$

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

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

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

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

$$\Rightarrow 3\frac{2}{5} = \frac{17}{5}$$

$$\Rightarrow 2\frac{1}{3} = \frac{7}{3}$$

$$= \frac{17}{5} + \frac{7}{3} = \frac{51 + 35}{15}$$

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

$$y = m + 3\frac{1}{7}$$

$$y = \frac{3}{7} - a$$

$$\text{This means } = m + 25 =$$

$$m = -20$$

$$-20 + 25 = 5$$

$$m = -20$$

$$y = \frac{3}{7}$$

~~$$5x - 4 = x - (24 + 4x)$$~~

~~$$5x - 4 = x - (24 + 4x)$$~~

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

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

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

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

————— X —————