CHAPTER-22

SIMPLE CLINEAR) EQUATIONS

C.W

Date 13/08/21
Page 5

Exercise - 22(A)

1. Solve:

i) $x+2=6$

Ans⇒ $x+2=6$
$\Rightarrow x+2-2=6-2$
$\Rightarrow x=4$

ii) $x+6=2$

Ans⇒ $x+6=2$
$\Rightarrow x+6-6=2-6$
$\Rightarrow x=-4$

2. Solve:

i) $x-3=2$

Ans⇒ $x-3=2$
$\Rightarrow x=2+3$
$\Rightarrow x=5$

ii) $m-2=-5$

Ans⇒ $m-2=-5$
$\Rightarrow m=-5+2$
$\Rightarrow m=-3$

3. Solve:

i) $3x=12$

iii)

3. i) $3x = 12$

Ans ⇒ $3x = 12$

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

$\Rightarrow x = 4$

ii) $2y = 9$

Ans ⇒ $2y = 9$

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

$\Rightarrow y = 4.5$

4. Solve:

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

Ans ⇒ $\frac{x}{2} = 5$

$\Rightarrow x = 5 \times 2$

$\Rightarrow x = 10$

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

Ans ⇒ $\frac{y}{3} = -2$

$\Rightarrow y = -2 \times 3$

$\Rightarrow y = -6$

5. Solve:

i) $-2x = 8$

Ans⇒ $-2x = 8$

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

$\Rightarrow x = -4$

ii) $-3.5y = 14$

Ans⇒ $-3.5y = 14$

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

$\Rightarrow y = -4$

H.W

1. iii) $y + 8 = 5$

Ans⇒ $y + 8 = 5$

$y + 8 = 5 \quad y = 5 - 8$

$\Rightarrow y = -3$

iv) $x + 4 = -3$

Ans⇒ $x + 4 = -3$

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

$\Rightarrow x = -7$

v) $y + 2 = -8$

Ans⇒ $y + 2 = -8$

$\Rightarrow y = -8 - 2$

$\Rightarrow y = -10$

vi) $b + 2.5 = 4.2$

Ans⇒ $b + 2.5 = 4.2$

$\Rightarrow b = 4.2 - 2.5$

$\Rightarrow b = 1.7$

vii) $p + 4.6 = 8.5$

Ans⇒ $p + 4.6 = 8.5$

$\Rightarrow p = 8.5 - 4.6$

$\Rightarrow p = 3.9$

viii) $y + 3.2 = -6.5$

Ans⇒ $y + 3.2 = -6.5$

$\Rightarrow y = -6.5 - 3.2$

$\Rightarrow y = -9.7$

ix) $a + 8.9 = -12.6$

Ans⇒ $a + 8.9 = -12.6$

$\Rightarrow a = -12.6 - 8.9$

$\Rightarrow a = -21.5$

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

Ans⇒ $x + 2\frac{1}{3} = 5$

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

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

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

Ans⇒ $z + 2 = 4\frac{1}{5}$

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

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

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

Ans⇒ $m + 3\frac{1}{2} = 4\frac{1}{4}$

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

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

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

Ans⇒ $x + 2 = 1\frac{1}{4}$

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

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

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

Ans⇒ $y + 5\frac{1}{3} = 4$

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

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

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

Ans⇒ $a + 3\frac{1}{5} = 1\frac{1}{2}$

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

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

2.iii) $b - 5 = 7$

Ans $\Rightarrow b - 5 = 7$

$\Rightarrow b = 7 + 5$

$\Rightarrow b = 12$

iv) $a - 2.5 = -4$

Ans $\Rightarrow a - 2.5 = -4$

$\Rightarrow a = -4 + 2.5$

$\Rightarrow a = -1.5$

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

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

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

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

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

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

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

$\Rightarrow z = -3\frac{2}{3}$

vii) $p - 5.4 = 2.7$

Ans⇒ $p - 5.4 = 2.7$

$\Rightarrow p = 2.7 + 5.4$

$\Rightarrow p = 8.1$

viii) $x - 1.5 = -4.9$

Ans⇒ $x - 1.5 = -4.9$

$\Rightarrow x = -4.9 + 1.5$

$\Rightarrow x = -3.4$

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

Ans⇒ $n - 4 = -4\frac{1}{5}$

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

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

3. iii) $5z = 8.5$

Ans⇒ $5z = 8.5$

$\Rightarrow z = \frac{8.5}{5}$

$\Rightarrow z = 1.7$

iv) $2.5m = 7.5$

Ans⇒ $2.5m = 7.5$

$\Rightarrow m = \frac{2.5}{7.5} \frac{7.5}{2.5}$

$\Rightarrow m = 3$

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

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

$\Rightarrow m = 15$

4.vi) $\frac{h}{7} = -2.8$

Ans⇒ $\frac{h}{7} = -2.8$

$\Rightarrow h = -2.8 \times 7$

$\Rightarrow h = -19.6$

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

Ans⇒ $\frac{a}{5} = -15$

$\Rightarrow a = -15 \times 5$

$\Rightarrow a = -75$

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

Ans⇒ $\frac{z}{4} = 3\frac{1}{4}$

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

$\Rightarrow z = 13$

3.v) $3.2p = 16$

Ans⇒ $3.2p = 16$

$\Rightarrow p = \frac{16}{3.2}$

$\Rightarrow p = 5$

vi) $2a = 4.6$

Ans⇒ $2a = 4.6$

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

$\Rightarrow a = 2.3$

5. iii) $-5z = 4$

Ans $\Rightarrow -5z = 4$

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

$\Rightarrow z = -0.8$

iv) $-5 = a + 3$

Ans $\Rightarrow -5 = a + 3$

$\Rightarrow -5 - 3 = a$

$\Rightarrow -8 = a$

v) $2 = p + 5$

Ans $\Rightarrow 2 = p + 5$

$\Rightarrow 2 - 5 = p$

$\Rightarrow -3 = p$

vi) $4.5 = m - 2.7$

Ans $\Rightarrow 4.5 = m - 2.7$

$\Rightarrow 4.5 + 2.7 = m$

$\Rightarrow 7.2 = m$

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

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

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

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

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

Ans⇒ $5 = m + 3\frac{4}{7}$

$\Rightarrow 5 - 3\frac{4}{7} = m \quad \Rightarrow m = 5 - \frac{25}{7}$

$\Rightarrow 8\frac{4}{7} = m \quad \Rightarrow m = \frac{10}{7} \quad \Rightarrow m = 1\frac{3}{7}$

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

Ans⇒ $-2\frac{1}{5} = y - 4$

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

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

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