

HOME ASSIGNMENT

EX-20(A)

2. (i)  $4pq \times 2\pi$  when  $p=5$ ,  $q=3$  and  $\pi=\frac{1}{2}$

$$= (4 \times 5 \times 3) \times \left(2 \times \frac{1}{2}\right)$$

$$= 60 \times 1$$

$$= 60$$

∴ ANS = 60

(ii)  $\frac{yz}{z}$ , when  $x=8$ ,  $y=4$  and  $z=16$

$$= \frac{4 \times 8}{16}$$

$$= \frac{32}{16} \quad \therefore \text{ANS} = 2$$

$$= 2$$

(iii)  $\frac{a+b-c}{2a}$ , when  $a=5$ ,  $b=7$  and  $c=2$

$$= \frac{5+7-2}{2 \times 5} = \frac{10}{10} = 1 \quad \therefore \text{ANS} = 1$$

EX-20(B)

2. (i)  $12x - (5x + 2x)$

$$= 12x - (7x)$$

$$= 12x - 7x$$

$$= 5x$$

(ii)  $10m + (4n - 3n) - 5n$

$$= 10m + n - 5n$$

$$= 10m - 4n$$

$$\begin{aligned} \text{(iii)} \quad & (15b - 6b) - (8b + 4b) \\ & = 9b - 12b \\ & = -3b \end{aligned}$$

$$\begin{aligned} \text{(iv)} \quad & -(-4a - 8a) \\ & = 4a + 8a \\ & = 12a \end{aligned}$$

$$\begin{aligned} \text{(v)} \quad & x - (x - y) - (x + y) \\ & = x - x + y + x - y \\ & = x - x + x + y - y \\ & = x \end{aligned}$$

$$\begin{aligned} \text{(vi)} \quad & p + (-q - r - s) - (p - q + r) \\ & = p - q - r - s - p + q + r \\ & = p - p - q + q - r + r - s \\ & = -s \end{aligned}$$

$$\begin{aligned} \text{(vii)} \quad & (a + b) - (c + d) - (e - f) \\ & = a + b - c - d - e + f \end{aligned}$$

$$\begin{aligned} \text{(viii)} \quad & 3x + (8x - 5x) - (7x - x) \\ & = 3x + 8x - 5x - 7x + x \\ & = 3x + 8x + x - 5x - 7x \\ & = 12x - 12x \\ & = 0 \end{aligned}$$

$$\begin{aligned} \text{(ix)} \quad & a - (a - b - c) \\ & = a - a + b + c \\ & = b + c \end{aligned}$$

$$\begin{aligned} \text{(x)} \quad & 6a^2 + (2a^2 - a^2) - (a^2 - b^2) \\ & = 6a^2 + 2a^2 - a^2 - a^2 + b^2 \\ & = 6a^2 + 2a^2 - a^2 \\ & = 8a^2 - a^2 + b^2 \\ & = 7a^2 + b^2 \end{aligned}$$

$$\begin{aligned} \text{(xi)} \quad & 2m - (3m + 2n - 6n) \\ & = 2m - 3m - 2n + 6n \\ & = -m + 4n \end{aligned}$$

$$\begin{aligned} \text{(xii)} \quad & -m - n - (-m) - m \\ & = -m - n + m - m \\ & = -m - n \end{aligned}$$

$$\begin{aligned} \text{(xiii)} \quad & x + y - (x + y - x) \\ & = x + y - (x + y - x) \\ & = x + y - (x + y) + x \\ & = x + y - x - y + x \\ & = x \end{aligned}$$

$$\begin{aligned} \text{(xiv)} \quad & 25y - (5x - 10y + 6x - 3y) \\ & = 25y - (11x - 13y) \\ & = 25y - 11x + 13y \\ & = 38y - 11x \end{aligned}$$

$$\begin{aligned}
 \text{(xv)} \quad & 3x + (2x - x + 2) \\
 & = 3x + (2x - x + 2) \\
 & = 3x + 2x - x + 2 \\
 & = 4x + 2
 \end{aligned}$$

$$\begin{aligned}
 \text{(xvi)} \quad & a - (2a - 4a + 3a) \\
 & = a - (2a - 4a + 3a) \\
 & = a - 2a + 4a + 3a \\
 & = 6a
 \end{aligned}$$

$$\begin{aligned}
 \text{(xvii)} \quad & 5x^2 - (3x - x^2 - 4) \\
 & = 5x^2 - (3x - x^2 + 4) \\
 & = 5x^2 - 3x + x^2 - 4 \\
 & = 6x^2 - 3x - 4
 \end{aligned}$$

$$\begin{aligned}
 \text{(xviii)} \quad & -(y-x) - (x+y-2x+y) \\
 & = -(y-x) - (x+y-2x-y) \\
 & = -y+x-x-y+2x+y \\
 & = -y-y+y+x-x+2x \\
 & = -y+2x
 \end{aligned}$$

### EXERCISE 20(C)

1. (i)  $2a + b - c = 2a + (b - c)$

(ii)  $3x - z + y = 3x - (z - y)$

(iii)  $6p - 5x + q = 6p - (5x - q)$

(iv)  $a + b - c + d = a + (b - c + d)$

$$(v) 5a + 4b + 4x - 2c = 4x - (5a - 4b + 2c)$$

$$(vi) 7x + 2z + 4y - 3 = -3 + 4y + (7x + 2z)$$

$$(vii) 3m - 2n + 6 = 6 - (2n - 3m)$$

$$(viii) 2t + r - p - q + s = 2t + r - (p + q - s)$$