classmate
Date
Page

20 (A)

3. (i) $4pq \times 2\pi$, when $p = 5, q = 3, \pi = 1/2$

$\Rightarrow 4pq \times 2\pi = 4 \times 5 \times 3 \times 2 \times \frac{1}{2}$

$\Rightarrow 60$

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

$\Rightarrow \frac{4 \times 8}{16} = \frac{32}{16} = 2$

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

$\Rightarrow \frac{5+7-2}{2 \times 5} = \frac{10}{10} = 1$

20 (B)

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

$\Rightarrow 12x - 7x$

$\Rightarrow 5x$

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

$= 10m + 1n - 5n$

$= 10m - 4n$

(iii) $(15b - 16b) - (8b + 4b)$

$= 9b - 12b$

$= -3b$

(iv) $-(-4a - 8a)$

$= 4a + 8a$

$= 12a$

(v) $x - (x - y) - (-x + y)$

$= x - x + y + x - y$

$= x$

(vi) $p+(-q-r-s)-(p-q-r)$

$= p-q-r-s-p+q+r$

$= -s$

(vii) $(a+b)-(c+d)-(e-f)$

$= a+b-c-d-e+f$

(viii) $3x+(8x-5x)-(7x-x)$

$= 3x+8x-5x-7x+x$

$= 3x+8x-5x-6x$

$= 11x-11x$

$= 0$

(ix) $a-(a-b-c)$

$= a-a+b+c$

$= b+c$

(x) $6a^2 + (2a^2 - a^2) - (a^2 - b^2)$

$\Rightarrow 6a^2 + a^2 - a^2 + b^2$

$\Rightarrow 6a^2 + b^2$

(xi) $2m - (3m + 2n - 6n)$

$\Rightarrow 2m - 3m - 2n + 6n$

$\Rightarrow -m + 4n$

$\Rightarrow 4n - m$

(xii) $-m - n - (-m) - m$

$\Rightarrow -m - n + m - m$

$\Rightarrow -m - n$

(xiii) $x + y - (x + \overline{y - x})$

$\Rightarrow x + y - (x + y - x)$

$\Rightarrow x + y - x - y + x$

$\Rightarrow x$

(xiv) $25y - (5x - 10y + 6x - 3y)$

$\Rightarrow 25y - 5x + 10y - 6x + 3y$

$\Rightarrow 25y + 10y + 3y - 5x - 6x$

$\Rightarrow 38y - 11x$

(xv) $3x + (2x - \overline{x+2})$

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

$\Rightarrow 5x - x - 2$

$\Rightarrow 4x - 2$

(xvi) $a - (2a - \overline{4a + 3a})$

$\Rightarrow a - (2a - 4a - 3a)$

$\Rightarrow a - (-2a - 3a)$

$\Rightarrow a - (-5a$

$\Rightarrow 6a$

(xvii) $5x^2 - (3x - \overline{x^2 - 4})$

$\Rightarrow 5x^2 - (3x - x^2 + 4)$

$\Rightarrow 5x^2 - 3x + x^2 - 4$

$\Rightarrow 5x^2 + x^2 - 3x - 4$

$\Rightarrow 6x^2 - 3x - 4$

(xviii) $-(y - x) - (x + y - \overline{2x + y})$

$\Rightarrow -(y + x) - (x + y - 2x - y)$

$\Rightarrow -y + x - (-x)$

$\Rightarrow -y + x + x$

$\Rightarrow 2x - y$

classmate
Date
Page

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

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

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

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