HW
23-08-2021



## Homework

### Exercise 19(B)

In the column method.

(i)
$$\begin{array}{r} 3a + 4b + 7b \\ -5a + 3b - 6c \\ +\ 4a - 2b - 4c \\ \hline 2a + 5b - 3c \end{array}$$

(ii)
$$\begin{array}{r} 2x^2 + xy - y^2 \\ x^2 + 2xy + 3y^2 \\ 3x^2 - 10xy + 4y^2 \\ \hline 4x^2 - 7xy + 6y^2 \end{array}$$

(iii)
$$\begin{array}{r} x^2 - x + 1 \\ -5x^2 + 2x - 2 \\ 3x^2 - 3x + 1 \\ \hline -1x^2 - 2x + 0 \end{array}$$

(iv)
$$\begin{array}{r} a^2 - ab + bc \\ 2ab + bc - 2a^2 \\ -3bc + 3a^2 + ab \end{array}$$

Doubt

$4x^2 + 7 - 3x$
$x^2 + 8 - 4x$
$+ 2x^2 - 10 + 5x$

2° (i) $-17x^2 - 2xy + 23y^2$,
$-9y^2 + 15x^2 + 7xy$ and
$13x^2 + 3y^2 - 4xy$

$= -17x^2 - 2xy + 23y^2$
$-9y^2 + 15x^2 + 7xy$
$-6xy + 2x^2 - 2 + y^2$

Doubt

~~$+ 17y^2$~~

Ans $= 11x^2 + xy + 17y^2$

(ii) $x^2 - 3xy + 3y^2 + 8$
$3x^2 - 5y^2 - 3 + 4xy$
$-6xy + 2x^2 - 2 + y^2$

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(ii) $-x^2 - 3xy + 3y^2 + 8$
$3x^2 + 4xy - 5y^2 - 3$
$2x^2 - 6xy + y^2 - 2$

$4x^2 - 5xy + 0y^2 - 7$

(ii) $a^3 - 2b^3 + a$
$b^3 - 2a^3 + b$
$-2b \quad 4a^3 - 2b^3 - 5a$
$-2b \quad 4a^3 - 0b^3 - 5a$

(iii) $-2b + 2b^3 - 5a + 4a^3$
$2b^3 + a - a^3$

3. Evaluate

(i) $\frac{3a^2 - 2a}{a + 2b - 3b} = 2a - 2b$

(ii) $\frac{5x - 3y}{x + y} = z$

(iii) $(5x - 3y) - (x + y)$

$= 5x - 3y - x + y$

$= 5x - x + 3y + y$

$= 4x - 4y$

(ii) $(8a + 15b) - (3b - 7a)$

$= 8a + 15b - 3b - 7a$

$= 23ab - 4ba$

(iii) $(8a + 15b) - (3b - 7a)$

$= (8a - 7a) - (3b - 15b)$

$= (15a) - (12b)$

(iv) $((8x) + (7y)) - ((4y) - (3x))$

$= (8x + 3x) - (4y - 7y)$

$= 11x - 3y$

$7 - (4a - 5)$

$= 7 - 4a + 5$

$= 12 + 4a$

(vi) $(6y-13)-(4-7y)$

$= (6y+7y)-(4-13)$

$= 13y-9$

4. Subtract:

(i) $a-4b-2c$

$5a-3b+2c$

$-4a-b+4c$

(ii) $12x+7y-21z$

$4x-6y+3z$

$8x+13y+24z$

(iii) $a-7b+3c$

$-5+a-4b+4c$

$6a+4a-11b+6c$

(iv) $5-a-4b+4c$

$5a-7b+2c$

(iii) $(5a - 4b + 4c) - (5a - 7b + 3$

Ans- $6a - 3b - 2c - 5$

(iv) $x - y - z$

$-8x + 12y + 17z$

$9x - 11y + 18z$

(v) $ab - 2cd + 2ac + bd$

$2ab + cd - ac - 2bd$

$3ab - 3cd + 3ac + 3bd$

5. (i) $bc - ca + ab$ ⊕

$-ab + bc - ca$

$0 - 0 + 2ab$

$bc - ca + ab$

$ab + bc - ca$ Ans = $2ab$

(ii) Ans - $-2x - y - z$

(iii) Ans - $2p - \frac{1}{3}q - \frac{1}{2}n$

(iv) Ans = 2a

6. $2x - y - 2z$

7. $2a + 2b + 3c$

8. $3x + 2y - z$

9. 0

—— x ——