

Ex 11(B)

$$2i) \quad -9x + 3x + 4x \\ = -2x$$

$$ii) \quad 23y^2 + 8y^2 - 12y^2 \\ = 19y^2$$

$$iii) \quad 18pq - 15pq + 3pq \\ = 6pq$$

$$3i) \quad 3m + 12m - 5m \\ = 10m$$

$$ii) \quad 7n^2 - 9n^2 + 3n^2 \\ = n^2$$

$$iii) \quad 25zy - 8zy - 6zy \\ = 11zy$$

$$iv) \quad -5ax^2 + 7ax^2 - 12ax^2 \\ = -10ax^2$$

$$v) \quad -16mx + 4mx + 4mx - 15mx + 5mx \\ = -7mx$$

$$4 i) \quad a + b + 2a + 3b \\ = 3a + 4b$$

$$ii) \quad 2x + y + 3x - 4y \\ = 5x - 3y$$

$$iii) \quad -3a + 2b + 3a + b \\ = 3b$$

$$\text{iv)} \quad 4+x+5-2x+6x$$

$$= 9+6x$$

$$\text{5i)} \quad (3x+8y+7z)+(6y+4z-2x)+(3y-4x+6z)$$

$$= 3x+8y+7z+6y+4z-2x+3y-4x+6z$$

$$= (3x-2x+4x)+(8y+6y+3y)+(7z+4z+6z)$$

$$= 5x+17y+17z$$

$$\text{i)} \quad 3a+5b+2c+2a+3b-c+a+b+c$$

$$= (3a+2a+a)+(5b+3b+b)+(2c-c+c)$$

$$= 6a+9b+2c$$

$$\text{ii)} \quad 4a^2+8xy-2y^2+8xy-5y^2+x^2$$

$$= (4a^2+x^2)+(8xy+8xy)-(2y^2+5y^2)$$

$$= 6a^2+16xy-7y^2$$

$$\text{iv)} \quad 9x^2-6x+7+5-4x+6-3x^2$$

$$= (7+5+6)+(9x^2-3x^2)-(6x+4x)$$

$$= 18+6x^2-10x$$

$$\text{v)} \quad 5a^2-2xy+3y^2-2a^2+5xy+9y^2+3x^2-xy-4y^2$$

$$= (5a^2-2a^2+3a^2)+(5xy-2xy-xy)+(3y^2+9y^2-4y^2)$$

$$= 6a^2+2xy+8y^2$$

$$\text{6i)} \quad a+3y$$

$$\text{ii)} \quad -2a+5$$

$$\text{iii)} \quad -4a^2+7x$$

$$\text{iv)} \quad 4a-7b$$

$$\text{v)} \quad x^2+3x^2y+2y^2$$

$$\text{vi)} \quad 11-by$$

$$\begin{aligned}
 7) \quad & \text{Perimeter of the triangle} \\
 & = 2x + 3y + x + 5y + 7x - 2y \\
 & = 10x + 6y
 \end{aligned}$$

$$\begin{aligned}
 8) \quad & \text{Perimeter of the rectangle} \\
 & = \cancel{2a} (6a + 9b + 6a + 9b + 8a - 4b + 8a - 4b) \\
 & = 28a + 10b
 \end{aligned}$$

$$\begin{aligned}
 9 \text{ viii) } & 4qp - 6p^2 - 2q^2 - 9p^2 \\
 & = (-6p^2 - 9p^2) + 4pq - 2q^2 \\
 & = -15p^2 + 4pq - 2q^2
 \end{aligned}$$

$$\begin{aligned}
 i) \quad & a + b - 2a + b \\
 & = a
 \end{aligned}$$

$$\begin{aligned}
 ii) \quad & b + 3c - 2b + 2c \\
 & = -3b + 5c
 \end{aligned}$$

$$\begin{aligned}
 iii) \quad & \cancel{6b} + 2a - 5a + \cancel{b} \\
 & = 7b + 3a
 \end{aligned}$$

$$\begin{aligned}
 10 \text{ ix) } & -3y^2 + 5xy^2 - 7x^2 - 9x^2y \\
 & \quad - \underline{y^2} \quad \quad \quad \underline{4x^2 - 5x^2y} \\
 & = -4y^2 - 5xy^2 - 11x^2 - 4x^2y
 \end{aligned}$$

$$\begin{array}{r} \text{iv)} \quad 3a - 2a^2 \\ - a \quad - 1 - a^3 \\ \hline 2a - 2a^2 - 1 - a^3 \end{array}$$

$$\begin{array}{r} \text{v)} \quad p + 2 \\ - 1 \\ \hline p + 1 \end{array}$$

$$\begin{array}{r} \text{vi)} \quad -x - y - 3z \\ - x - 2y - z \\ \hline 2x + 3y + 4z \end{array}$$

$$\begin{array}{r} \text{vii)} \quad 3a^2 - 4ab + 6b^2 \\ - 3a^2 - 8ab + 2b^2 \\ \hline - 4ab - 8b^2 \end{array}$$

$$\begin{array}{r} \text{viii)} \quad 2a^2 + 2abc - 4b^2 \\ - 10abc \\ \hline - 2a^2 + 8abc + 4b^2 \end{array}$$

$$\begin{array}{r} \text{x)} \quad a^2 - d^2 \\ - a^2 - ab - c^2 \\ \hline -d^2 - ab - c^2 \end{array}$$

10 i)

$$\begin{array}{r} 8 - 2x \\ - \quad -4x \\ \hline 8 + 5x \end{array}$$

ii)

$$\begin{array}{r} c + 3d \\ - \quad 6c \\ \hline 9c + 3d \end{array}$$

v)

$$\begin{array}{r} \text{①} \text{ ②} \text{ ③} \text{ ④} \text{ ⑤} \text{ ⑥} \text{ ⑦} \text{ ⑧} \text{ ⑨} \text{ ⑩} \text{ ⑪} \text{ ⑫} \text{ ⑬} \text{ ⑭} \text{ ⑮} \text{ ⑯} \text{ ⑰} \text{ ⑱} \text{ ⑲} \text{ ⑳} \text{ ㉑} \text{ ㉒} \text{ ㉓} \text{ ㉔} \text{ ㉕} \text{ ㉖} \text{ ㉗} \text{ ㉘} \text{ ㉙} \text{ ㉚} \text{ ㉛} \text{ ㉜} \text{ ㉝} \text{ ㉞} \text{ ㉟} \text{ ㊱} \text{ ㊲} \text{ ㊳} \text{ ㊴} \text{ ㊵} \text{ ㊶} \text{ ㊷} \text{ ㊸} \text{ ㊹} \text{ ㊺} \text{ ㊻} \text{ ㊼} \text{ ㊽} \text{ ㊾} \text{ ㊿} \\ 4a - b - 2c \\ - \quad 5a + 3b - 2c \\ \hline -a + 2b - 4c \end{array}$$

iii)

$$\begin{array}{r} b + 6c \\ - \quad 5a + 2b \\ \hline 3a + 3b + 6c \end{array}$$