

Ex-11(c)



$$\begin{aligned} \text{(i)} \quad 3x \times 5x^2y \times 2y &= (3 \times 5 \times 2) \times (x \times x^2y \times y) \\ &= 30x^3y^2 \end{aligned}$$

$$\begin{aligned} \text{(ii)} \quad 5x \times 3a \times 2ab^2 &= (5 \times 3 \times 2) \times (a \times ab^2) \\ &= 30a^2b^2 \end{aligned}$$

$$\begin{aligned} \text{(iii)} \quad 5x + 2y \text{ and } 3xy &: \cancel{5} + \cancel{6}xy \times 3xy \\ &= 3xy(5x + 2y) \quad \cancel{5} \times \cancel{6}xy^2 \end{aligned}$$

$$3xy \times 5x + 3xy \times 2y = 15x^2y + 6xy^2$$

$$\begin{aligned} \text{(iv)} \quad 6a - 5b \text{ and } -2a &= -2a(6a - 5b) \\ &= -2a \times 6a - (-2a \times 5b) \\ &= -2a \times 6a + 2a \times 5b \\ &= -12a^2 + 10ab \end{aligned}$$

$$\begin{aligned} \text{(v)} \quad 4a + 5b \text{ and } 4a - 5b &= (4a + 5b)(4a - 5b) \\ &= 16a^2 - 25b^2 \end{aligned}$$

$$\text{(vi)} \quad 9xy + 2y^2 \text{ and } 2x - 3y$$

$$2. \text{ (i) } \begin{array}{r} 3a + 2b \\ x - 3xy \end{array}$$

$$\text{(ii) } \begin{array}{r} 9x - 5y \\ x - 3xy \end{array}$$

$$-3axy - 6bxy$$

$$27x^2y + 15xy^2$$

$$\text{(iii) } \begin{array}{r} 3xy - 2x^2 - 6x \\ -5x^2y \end{array}$$

$$\text{(iv) } \begin{array}{r} a + b \\ \times a + b \\ \hline a^2 + b^2 + 2ab \end{array}$$

$$-15x^3y^2 + 10x^4y + 30x^3y$$

$$\text{(v) } \begin{array}{r} ax - b \\ \times 2ax + 2b^2 \\ \hline \end{array}$$

$$2a^2x^2 - 2abx + 2ab^2x - 2b^3$$

$$(vi) \begin{array}{r} 2a - b + 3c \\ - 2a - 4b \\ \hline \end{array}$$

$$\begin{array}{r} 4a^2 - 2ab + 6ac \\ - 8ab + 4b^2 - 12bc \\ \hline \end{array}$$

$$4a^2 - 10ab + 6ac + 4b^2 - 12bc$$

$$(vii) \begin{array}{r} 3m^2 + 6m - 2n \\ \times \quad 5n - 3m \\ \hline \end{array}$$

$$\begin{array}{r} 15m^2n + 30mn - 10n^2 - 9m^3 - 18m^2 \\ + 6 \\ \hline \end{array}$$

$$15m^2n + 36mn - 10n^2 - 9m^3 - 18m^2$$

$$(viii) \begin{array}{r} 6 - 3x + 2x^2 \\ \times \quad 1 + 5x - x^2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 - 3x + 2x^2 \\ + 30x - 15x^2 + 10x^3 \\ - \quad - 6x^2 + 3x^3 - 2x^4 \\ \hline \end{array}$$

$$6 + 27x - 19x^2 + 13x^3 - 2x^4$$

$$(ix) \begin{array}{r} 4x^3 - 10x^2 + 6x - 8 \\ \quad 3 + 2x - x^2 \\ \hline \end{array}$$

$$\begin{array}{r} 12x^3 - 30x^2 + 18x - 24 \\ \hline \end{array}$$

$$8x^4 - 20x^3 + 12x^2 - 16x$$

$$- 4x^5 + 18x^4 - 14x^3 - 10x^2 + 2x - 24$$