

Ans.

$$2-i) 4x \times 6x \times 2 = 48x^2$$

$$ii) 3ab \times 6ax = 18a^2bx$$

$$iii) x \times 2x^2 \times 3x^3 = 6x^6$$

$$iv) 6x \times 6x^2 \times 6x^2y^3 \times 5 \times 5a^3 = 25a^3$$

$$v) 6 \times 6x^2 \times 6x^2y^3 = 216x^4y^3$$

$$vi) -8x \times -3x = 24x^2$$

$$vii) -5x \times -3x \times 5x^2 = 75x^3$$

$$viii) 8x \times 4xy^2 \times 3x^3y^2 = 96x^4y^4$$

$$ix) -4x \times 5xy \times 3z = -60x^2yz$$

$$x) 5x \times 2x^2y \times -7y^3 \times 2x^3y^2 = -140x^6y^6$$

$$3-i) 3x^3 \times 5x^4$$

$$ii) 5a^2 \times 7a^7$$

$$\begin{aligned} &= (3 \times 5) \times (x^3 \times x^4) \\ &= 15x^7 \end{aligned}$$

$$\begin{aligned} &= (5 \times 7) \times (a^2 \times a^7) \\ &= 35a^9 \end{aligned}$$

$$iii) 3abc \times 6ac^3$$

$$\begin{aligned} &= (3 \times 6) \times (a \times a) \times (c \times c^3) \times b \\ &= 18a^2c^4b \end{aligned}$$

$$iv) a^2 b^3 \times 5a^3 b^4$$

$$= 5 \times (a^2 \times a^3) \times (b^3 \times b^4)$$

$$= 5a^5 b^7$$

$$v) 2x^2 y^3 \times 6x^3 y^4$$

$$= (6 \times 2) \times (x^2 \times x^3) \times (y^3 \times y^4)$$

$$= 10x^5 y^7$$

$$vi) abc \times bed$$

$$= a \times (b \times b) \times (c \times c) \times d$$

$$= ab^2 c^2 d$$

$$7) i) x+2 \text{ and } x+10$$

$$= (x+2) \times (x+10)$$

$$= x \times (x+10) + 2 \times (x+10)$$

$$= x^2 + 10x + 2x + 20$$

$$= x^2 + 12x + 20$$

$$ii) x+5 \text{ and } x-3$$

$$= (x+5) \times (x-3)$$

$$= x \times (x-3) + 5 \times (x-3)$$

$$= x^2 - 3x + 5x - 15$$

$$= x^2 + 2x - 15$$

$$iii) x-5 \text{ and } x+3$$

$$= (x-5) \times (x+3)$$

$$= x \times (x+3) - 5 \times (x+3)$$

$$= x^2 + 3x - 5x - 15$$

$$= x^2 - 2x - 15$$

$$\text{vi) } x-5 \text{ and } x-3$$

$$\begin{aligned} &= (x-5) \times (x-3) \\ &= x \times (x-3) - 5 \times (x-3) \\ &= x^2 - 3x - 5x + 15 \\ &= x^2 - 8x + 15 \end{aligned}$$

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

$$\begin{aligned} &= (2x+y) \times (x+3y) \\ &= 2x \times (x+3y) + y \times (x+3y) \\ &= 2x^2 + 6xy + xy + 3y^2 \\ &= 2x^2 + 7xy + 3y^2 \end{aligned}$$

$$\text{vii) } 3x-5y \text{ and } x+6y$$

$$\begin{aligned} &= (3x-5y) \times (x+6y) \\ &= 3x \times (x+6y) - 5y \times (x+6y) \\ &= 3x^2 + 18xy - 5xy - 30y^2 \\ &= 3x^2 + 13xy - 30y^2 \end{aligned}$$

$$\text{vii) } x+9y \text{ and } x-5y$$

$$\begin{aligned} &= (x+9y) \times (x-5y) \\ &= x \times (x-5y) + 9y \times (x-5y) \\ &= x^2 - 5xy + 9xy - 45y^2 \\ &= x^2 + 4xy - 45y^2 \end{aligned}$$

$$\text{viii) } 2x+5y \text{ and } 2x+5y$$

$$\begin{aligned} &= (2x+5y) \times (2x+5y) \\ &= 2x \times (2x+5y) + 5y \times (2x+5y) \\ &= 4x^2 + 10xy + 10xy + 25y^2 \\ &= 4x^2 + 20xy + 25y^2 \end{aligned}$$