



Exercise 2E

Question 24:

$$\begin{aligned} & ab(x^2 + y^2) - xy(a^2 + b^2) \\ &= abx^2 + aby^2 - a^2xy - b^2xy \\ &= abx^2 - a^2xy + aby^2 - b^2xy \\ &= ax(bx - ay) + by(ay - bx) \\ &= (bx - ay)(ax - by) \end{aligned}$$

Question 25:

$$\begin{aligned} & a^2 + ab(b + 1) + b^3 \\ &= a^2 + ab^2 + ab + b^3 \\ &= a^2 + ab + ab^2 + b^3 \\ &= a(a + b) + b^2(a + b) \\ &= (a + b)(a + b^2) \end{aligned}$$

Question 26:

$$\begin{aligned} & a^3 + ab(1 - 2a) - 2b^2 \\ &= a^3 + ab - 2a^2b - 2b^2 \\ &= a(a^2 + b) - 2b(a^2 + b) \\ &= (a^2 + b)(a - 2b) \end{aligned}$$

Question 27:

$$\begin{aligned} & 2a^2 + bc - 2ab - ac \\ &= 2a^2 - 2ab - ac + bc \\ &= 2a(a - b) - c(a - b) \\ &= (a - b)(2a - c) \end{aligned}$$

***** END *****