



Exercise 2E

Question 19:

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

Question 20:

$$\begin{aligned} & 3ax - 6ay - 8by + 4bx \\ &= 3a(x - 2y) + 4b(x - 2y) \\ &= (x - 2y)(3a + 4b) \end{aligned}$$

Question 21:

$$\begin{aligned} & abx^2 + a^2x + b^2x + ab \\ &= ax(bx + a) + b(bx + a) \\ &= (bx + a)(ax + b) \end{aligned}$$

Question 22:

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

Question 23:

$$\begin{aligned} & 2x + 4y - 8xy - 1 \\ &= 2x - 1 - 8xy + 4y \\ &= (2x - 1) - 4y(2x - 1) \\ &= (2x - 1)(1 - 4y) \end{aligned}$$

***** END *****