



Exercise 2E

Question 32:

$$\begin{aligned} & ab(x^2 + 1) + x(a^2 + b^2) \\ &= abx^2 + ab + a^2x + b^2x \\ &= abx^2 + a^2x + ab + b^2x \\ &= ax(bx + a) + b(bx + a) \\ &= (bx + a)(ax + b) \end{aligned}$$

Question 33:

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

Question 34:

$$\begin{aligned} & x^2 + \frac{1}{x^2} - 2 - 3x + \frac{3}{x} \\ &= \left(x - \frac{1}{x}\right)^2 - 3\left(x - \frac{1}{x}\right) \\ &= \left(x - \frac{1}{x}\right)\left(x - \frac{1}{x} - 3\right) \end{aligned}$$

***** END *****