



Exercise 2G

Question 11:

$$\begin{aligned} & 6 - x - x^2 \\ &= 6 + 2x - 3x - x^2 \\ &= 2(3 + x) - x(3 + x) \\ &= (3 + x)(2 - x). \end{aligned}$$

Question 12:

$$\begin{aligned} & 7x^2 + 49x + 84 \\ &= 7(x^2 + 7x + 12) \\ &= 7[x^2 + 4x + 3x + 12] \\ &= 7[x(x + 4) + 3(x + 4)] \\ &= 7(x + 4)(x + 3). \end{aligned}$$

Question 13:

$$\begin{aligned} & m^2 + 17mn - 84n^2 \\ &= m^2 + 21mn - 4mn - 84n^2 \\ &= m(m + 21n) - 4n(m + 21n) \\ &= (m + 21n)(m - 4n). \end{aligned}$$

Question 14:

$$\begin{aligned} & 5x^2 + 16x + 3 \\ &= 5x^2 + 15x + x + 3 \\ &= 5x(x + 3) + 1(x + 3) \\ &= (5x + 1)(x + 3). \end{aligned}$$

Question 15:

$$\begin{aligned} & 6x^2 + 17x + 12 \\ &= 6x^2 + 9x + 8x + 12 \\ &= 3x(2x + 3) + 4(2x + 3) \\ &= (2x + 3)(3x + 4). \end{aligned}$$

***** END *****