



### 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 \*\*\*\*\*