Your Turn

1. Write the highest common factor of the two terms in each expression:

   a. $2x + 6$

   2

   b. $8x + 6$

   2

   c. $5x - 10$

   5

   d. $4x + 16$

   4

   e. $3x^2 + 9x$

   $3x$

2. Fully factorise each expression:

   a. $10x + 5$

   $5(2x + 1)$

   b. $2x - 8$

   $2(x - 4)$

   c. $5m - 25$

   $5(m - 5)$

   d. $6x + 3$

   $3(2x + 1)$

   e. $10t + 30$

   $10(t + 3)$

   f. $7a - 14$

   $7(a - 2)$

   g. $3y + 12$

   $3(y + 4)$

   h. $8z - 10$

   $2(4z - 5)$

3. Fully factorise each of the following expressions.

   Hint: look for two common factors.

   a. $2x^2 + 6x$

   $2x(x + 3)$

   b. $2y^2 - 8y$

   $2y(y - 4)$

   c. $9x^2 + 3xy$

   $3x(3x + y)$

   d. $4ab - 6bc$

   $2b(2a - 3c)$

   e. $4q^2 - 8pq$

   $4q(q - 2p)$

   f. $2y^3 + 4y$

   $2y(y^2 + 2)$

Challenge

Explain why $8x + 3y$ cannot be factorised.

There are no common factors between the terms other than 1.