Worksheet | Quadratics & Parabolas

Expanding and factorising quadratics

Name: _____ Date: _____

6 questions | 22 marks

1. Expand and simplify. [4 marks]

(a) $(x+3)(x+2)$

(b) $(x+4)(x-1)$

2. Factorise. [4 marks]

(a) $x^2+7x+10$

(b) $x^2-9x+20$

3. Factorise. [4 marks]

(a) x^2-16

(b) $x^2+10x+25$

4. Factorise $x^2 - 3x - 18$. Check your answer by expanding. [3 marks]

5. A rectangle has width $(x + 3)$ m and length $(x + 5)$ m. [4 marks]

(a) Expand an expression for its area.

(b) Find its area when $x = 2$.

6. Mia writes $(x + 4)^2 = x^2 + 16$. Explain her mistake and write the correct expansion. [3 marks]