Practice worksheet | Quadratics and Parabolas

Parameter changes and transformations using graphing tools

Name: _____ Date: _____

6 questions | 14 marks

1. State the turning point and axis of $y = (x - 1)^2 - 3$. [2 marks]

2. State the turning point of $y = (x + 4)^2 - 2$. [2 marks]

3. Which opens downwards: $y = 3x^2$ or $y = -x^2$? [2 marks]

4. At $x = 2$, compare the outputs of $y = x^2$ and $y = 3x^2$. [2 marks]

5. Write a quadratic rule with the same shape as $y = x^2$ and turning point $(3, -5)$. [3 marks]

6. A graphing experiment changes $y = x^2 + k$ from $k = -2$ to $k = 4$. Describe what changes and what stays the same. [3 marks]