Practice worksheet | Quadratics and polynomial graphs

Building quadratic models from information

Name: _____ Date: _____

6 questions | 18 marks

1. Roots are -2,4 and the graph passes through $(0, -16)$. Find its rule. [3 marks]

2. Vertex is $(3, -2)$ and the graph passes through $(1, 6)$. Find its rule. [3 marks]

3. A rectangle has perimeter 40 cm. Find maximum area and dimensions. [3 marks]

4. A ball has height $h = -5t^2 + 20t + 1$ m. Find maximum height/time. [3 marks]

5. A rectangle's length is 3 cm more than its width; area is 40 square centimetres. Find dimensions. [3 marks]

6. An arch has supports $x = -3$ m, $x = 3$ m and maximum height 9 m. Give its rule/domain. [3 marks]