

Algebra 2: Homework 49

1. Solve by completing the square: $x^2 - 5x - 8 = 0$
2. Solve by completing the square: $2x^2 + 3x - 4 = 0$
3. Solve by using the quadratic formula: $3x^2 - 6x = 7$
4. Write the quadratic function $g(x) = -2x^2 - 5x + 1$ in vertex form, state the coordinates of the vertex, and state whether the vertex is a maximum or a minimum.
5. State the domain and range of each relation.
 - a. $\{(0,3),(-1,0),(0,-1)\}$
 - b. $\{(x,y),(a,b),(m,n)\}$
6. What is the axis of symmetry of the parabola represented by the equation $y = 2x^2 + 16x - 11$?
7. An archer shoots an arrow into the air such that its height at any time, t , is given by the function $h(t) = -16t^2 + kt + 3$. If the maximum height of the arrow occurs at time $t = 4$, what is the value of k ?