

Name: _____
Date: _____
Class: _____

Algebra
Review

Quadratic equations

1) Which is the minimum value in the range of a function $f(x) = 6x^2 - 12x + 7$?
1) 1 2) 7 3) -12 4) 6

2) Which of the following would be the location of the vertex of the equation $y = -2x^2 - 8x + 9$?
1) (0, 9) 2) (-2, 17) 3) (2, -15) 4) (-2, 33)

3) What is the equation of the axis of symmetry for the equation $g(x) = 16x^2 - 14x + 19$?
1) $x = -14$ 2) $x = \frac{14}{32}$ 3) $x = -\frac{14}{32}$ 4) $x = \frac{32}{14}$

4) Which of the following would describe the shift from $y = (x - 4)^2 + 7$ to $y = x^2$?
1) right 4 up 7 2) left 4 down 7
3) left 7 down 4 4) right 7 up 4

5) What would the roots of the function $g(x) = 24x^2 + 34x + 5$?
1) $\frac{5}{4}$ and $\frac{1}{6}$ 2) $-\frac{5}{4}$ and $-\frac{1}{6}$
3) -34 and -5 4) 34 and 5

6) Place the following function in to vertex form: $g(x) = 2x^2 - 4x + 7$

7) Place the following into vertex form: $h(x) = x^2 + 8x - 19$

8) If the height above the ground of a ball thrown in the air can be modeled by $y = -\frac{1}{4}x^2 + x + 6$, how long is the ball in the air to the nearest thousandth?

9) Find the zeros for the following equation to the nearest hundredth:
 $2x^2 - 4x - (x - 4)^2 + 5 = 3x^2 - 8x - 10$.