

AC Math 1
Quadratics Mixed Review WS 1
(Solving, Graphing, Converting, Inequalities)
Answers

1. $\left\{0, \frac{7}{3}\right\}$

2. $\{-4, 6\}$

3. $\left\{-\frac{1}{2}, 3\right\}$

4. $\{\pm 3\sqrt{2}\}$

5. $\{0, 7\}$

6. $\left\{\pm \frac{4}{3}\right\}$

7. x-Intercept(s): (1, 0) (-1, 0)
Vertex: (0, 2)
Axis of Symmetry: $x = 0$
y-intercept: (0, 2)

8. x-Intercept(s): (0, 0) (4, 0)
Vertex: (2, -2)
Axis of Symmetry: $x = 2$
y-intercept: (0, 0)

9. x-Intercept(s): (3, 0) (5, 0)
Vertex: (4, -1)
Axis of Symmetry: $x = 4$
y-intercept: (0, 15)

10. x-Intercept(s): none
Vertex: (-2, 2)
Axis of Symmetry: $x = -2$
y-intercept: (0, 14)

11. x-Intercept(s): (1, 0) (-3, 0)
Vertex: (-1, 2)
Axis of Symmetry: $x = -1$
y-intercept: (0, 3/2)

12. x-Intercept(s): (-3, 0) (-1, 0)
Vertex: (-2, -3)
Axis of Symmetry: $x = -2$
y-intercept: (0, 9)

13. a. $f(x) = -2x^2 + 2$

b. $h(x) = 3x^2 + 12x + 14$

14. a. $g(x) = (x-3)(x-5)$

b. $g(x) = 3(x+1)(x+3)$

15. a. $g(x) = (x-4)^2 - 1$

b. $g(x) = 3(x+2)^2 + 2$

16. vertex: (-2, -7) / opens up / normal width / solid / shade outside

17. vertex: (-1, -3) / opens up / normal width / solid / shade inside

18. vertex: (1, 3) / opens down / normal width / dotted / shade outside

19. $-2 \leq x \leq 0$

20. $-3 < x < 1$

21. $x \leq -2.5$ or $x \geq 1$