

# ANSWER PRESENTATION TOOL

Algebra 2 - Student Editi

3

Chapter Test

1-14

ALL EVEN

Show Sol

ODD

1.  $x = -1 \pm i\sqrt{2}$ ; *Sample answer:* completing the square because  $a = 1$  and  $b$  is an even number

2.  $x = 3 \pm \sqrt{2}$ ; *Sample answer:* completing the square because  $a = 1$  and  $b$  is an even number

3.  $x = \pm 6$ ; *Sample answer:* square roots because the equation can be written in the form  $u^2 = d$

4.  $x = \pm 2$ ; *Sample answer:* graphing because you can rewrite it as a system of equations

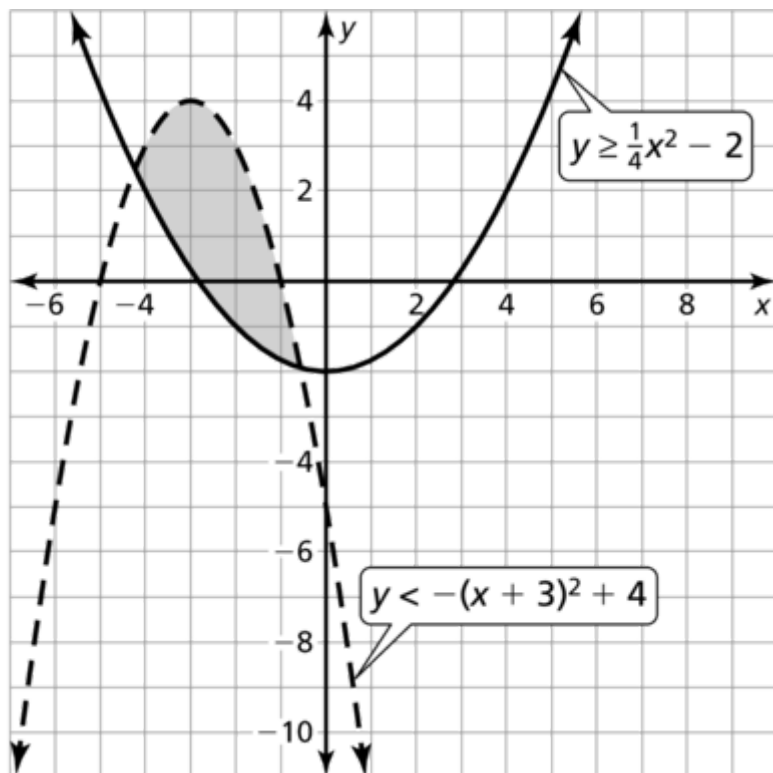
5. Because the graph has only one  $x$ -intercept, the equation has exactly one real solution; The discriminant is 0.

6. Because the graph has no  $x$ -intercept, the equation has two imaginary solutions; The discriminant is  $-32$ .

7. Because the graph has two  $x$ -intercepts, the equation has two real solutions; The discriminant is 6.25.

8.  $(6, -6)$  and  $(8, -2)$

9.

10.  $(-6, -2)$  and  $(2, 6)$ 11.  $36 - 2i$ 

12. The width is about 27.9 inches and the height is about 15.7 inches; Solving  $32^2 = (9x)^2 + (16x)^2$  for  $x$  gives  $x \approx 1.743$ .

13. about 55 ft to about 580 ft; Graph  $y = -0.0063x^2 + 4x$  and  $y = 200$  and determine the points of intersection. The graph is above 200 feet between these points.

14. 4.25 ft; about 35.6 ft; The y-coordinate of the vertex is 4.25 and the x-intercept of the graph is about 35.6.