

Section 9.8 Worksheet

Name: _____

Decide whether the ordered pair is a solution of the quadratic inequality.

1.) $y < 3x^2 - 8x$

(2, -1)

2.) $y \leq x^2 - 5x - 6$

(0, -10)

3.) $y \geq -x^2 + 2x - 3$

(-3, 0)

4.) $y > -8x^2 + 4x - 6$

(-1, -2)

5.) $y \leq -2x^2 - 11x - 4$

(-4, 9)

6.) $y \geq 2x^2 + 5x + 3$

(3, 12)

Graph the following quadratic inequalities.

7.) $y \leq x^2 + 4$

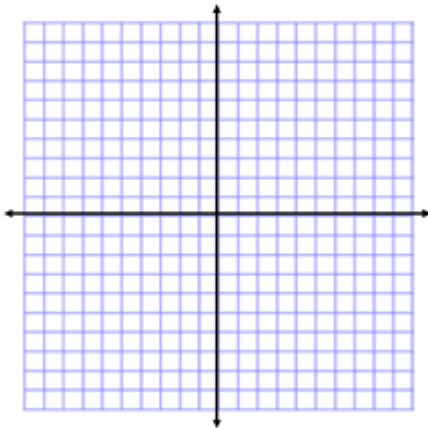
8.) $y \geq -x^2 + 6$

AOS: _____

vertex: _____

y-int: _____

opens: _____

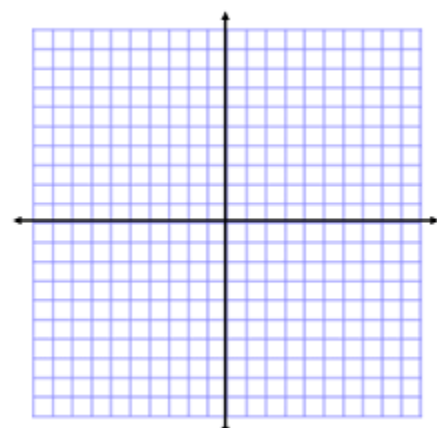


AOS: _____

vertex: _____

y-int: _____

opens: _____



x					
y					

x					
y					

9.) $y > x^2 - x - 12$

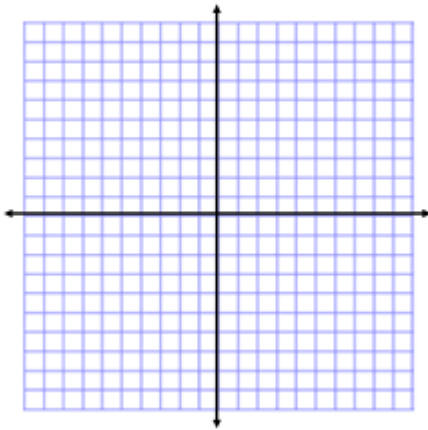
10.) $y < -x^2 + 4x + 2$

AOS: _____

vertex: _____

y-int: _____

opens: _____

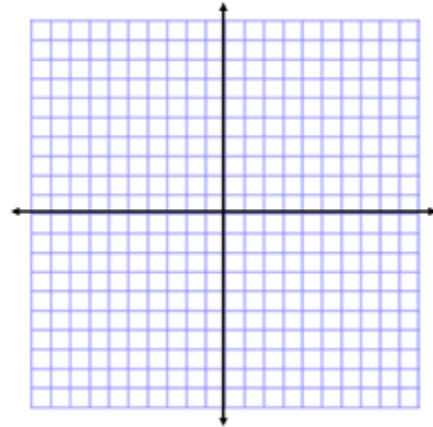


AOS: _____

vertex: _____

y-int: _____

opens: _____



x					
y					

x					
y					

REVIEW:

Use the quadratic formula to solve the equation. Leave your answer in simplest radical form.

11.) $3x^2 - 4x - 1 = 0$

12.) $x^2 - 2x = 8$

Find the value of the discriminant. Then use the value to determine if the equation has *two solutions*, *one solution*, or *no real solution*.

13.) $x^2 - 4x + 4 = 0$

14.) $-x^2 - 10x - 25 = 0$