

Name:

### Solve by Graphing

#### Practice Worksheet

#### Level ONE

Solve the quadratics by graphing.

$$x^2 + x - 12 = 0$$

Max or Min? min

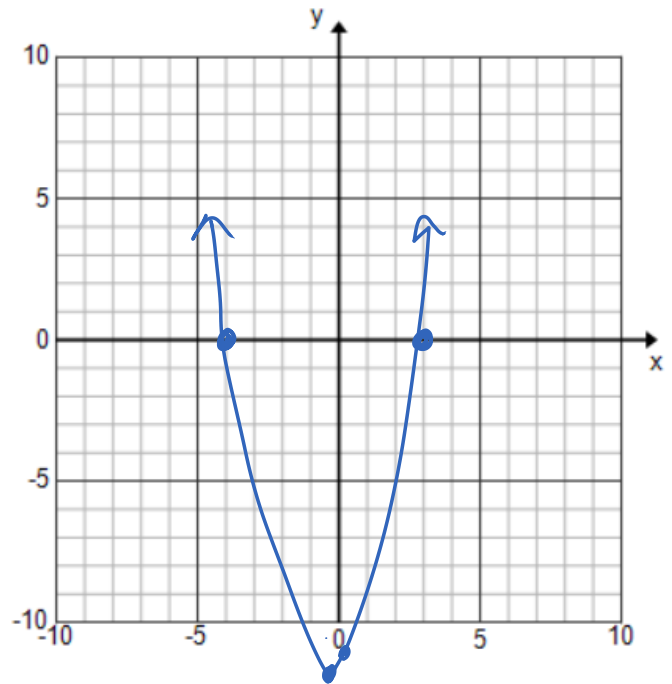
$$-\frac{1}{2}$$

Up or Down? up

y-intercept: (0, -12)

Vertex:  $(-\frac{1}{2}, -12.25)$

x-intercepts: (-4, 0) and (3, 0)



#### Level TWO

Solve the quadratics by graphing.

$$x^2 - 7x + 10 = 0$$

Max or Min? min

$$\frac{7}{2} = 3.5$$

Up or Down? up

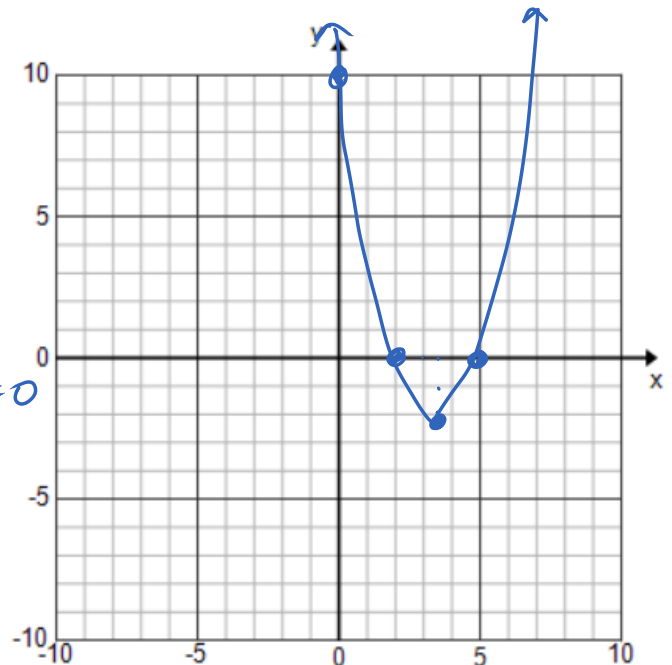
$$(3.5)^2 - 7(3.5) + 10$$

y-intercept: (0, 10)

Vertex:  $(3.5, -2.25)$

$$(x - 5)(x - 2) = 0$$

x-intercepts: (5, 0) and (2, 0)

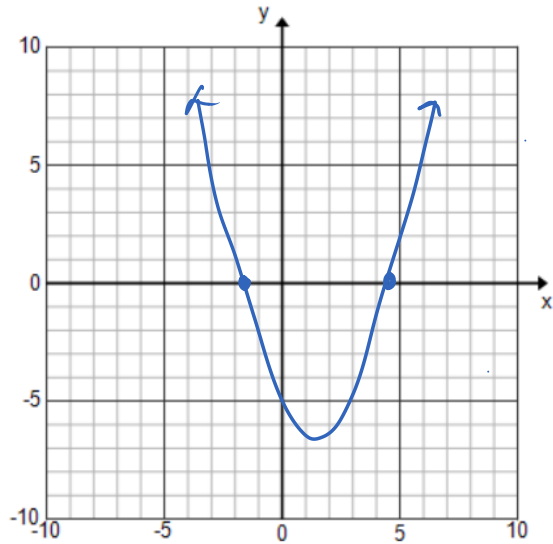


**Level THREE**

Use your graphing calculator to answer the questions and draw a quick sketch.

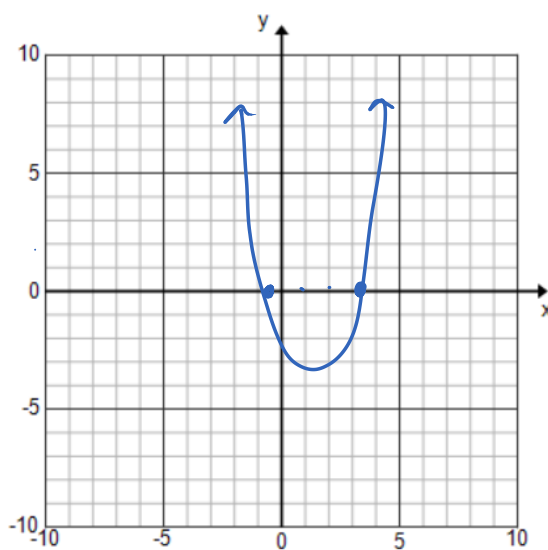
$$y = x^2 - 3x - 8$$

Zeros:  $x = -1.70$   $x = 4.70$



$$y = 2x^2 - 5x - 4$$

Zeros:  $x = -0.64$  and  $x = 3.14$

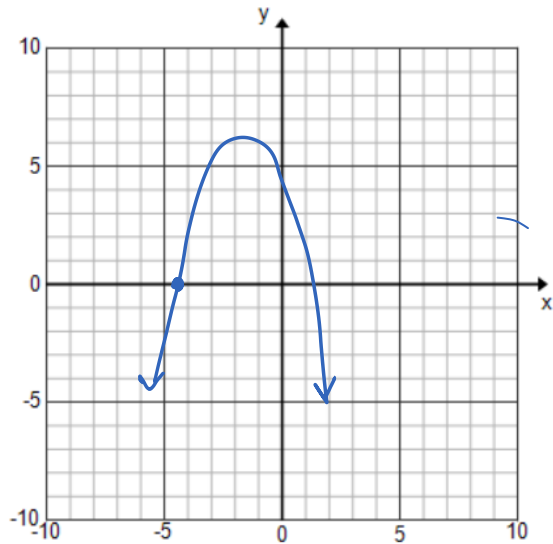


**Level FOUR**

Use your graphing calculator to answer the questions and draw a quick sketch.

$$y = -x^2 - 3x + 5$$

Zeros:  $x = -4.19$   $x = 1.19$



$$y = -3x^2 - x + 4$$

Zeros:  $x = -1.3$   $x = 1$

