

# Warm up 12 May

Given the quadratic function:

$$f(x) = -1x^2 + 2x + 8$$

a. Sketch the parabola to the right.

**State the following:**

b. Vertex Point: (\_\_\_\_, \_\_\_\_)

c. State the Line of Symmetry:  
 $x =$  \_\_\_\_\_

d. State the  $y$ -intercept: (\_\_\_\_, \_\_\_\_)

e. State the  $x$ -intercept(s): (if any)

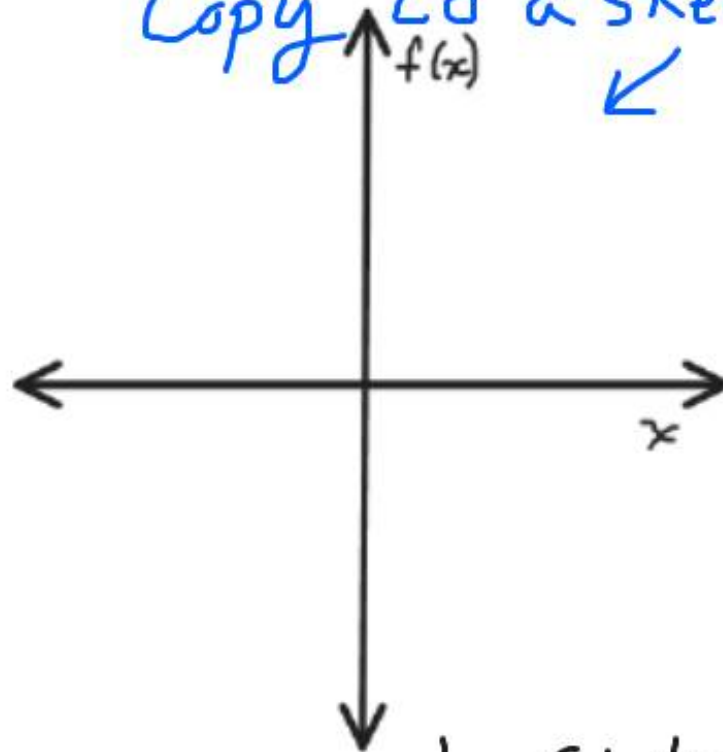
(\_\_\_\_, \_\_\_\_) ; (\_\_\_\_, \_\_\_\_)

f. Solve for the value(s) of  $x$  that make the function have a value of 5, ie solve for:

$$-1x^2 + 2x + 8 = 5$$

g.  $x =$  \_\_\_\_\_ and \_\_\_\_\_

Use a graphing tool  
Copy to a sketch



h. State:

Domain:

{ <math>x</math> <math></math> }

Range

{ <math>y</math> <math></math> }

← What 'x' values make it true

Given the quadratic function:

$$f(x) = x^2 - 10x + 25$$

a. Sketch the parabola to the right.

**State the following:**

b. Vertex Point: (\_\_\_\_, \_\_\_\_)

c. State the Line of Symmetry:

$$x = \underline{\hspace{2cm}}$$

d. State the **y**-intercept: (\_\_\_\_, \_\_\_\_)

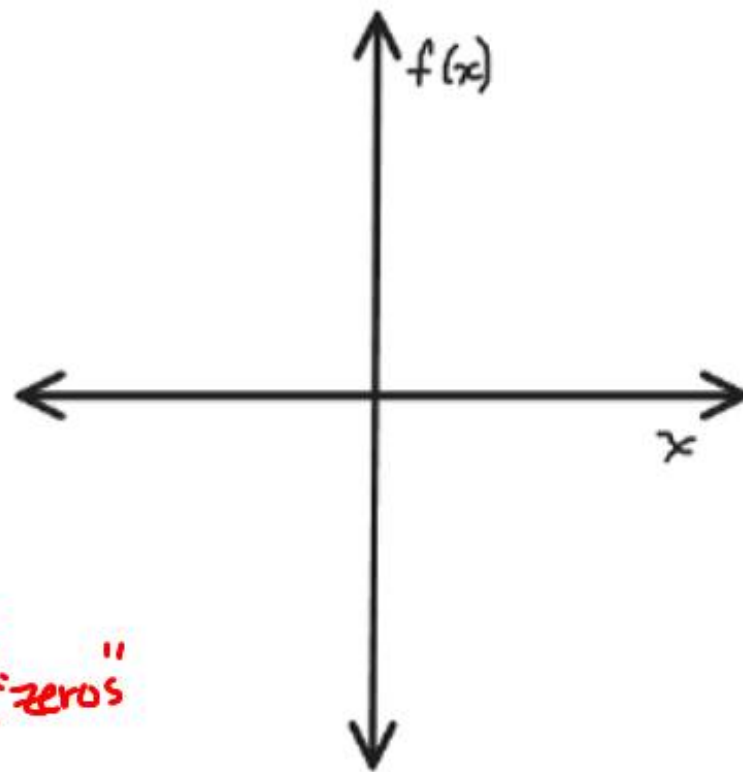
e. State the **x**-intercept(s): (if any) *aka: the "zeros"*

$$(\underline{\hspace{1cm}}, \underline{\hspace{1cm}}) ; (\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$$

f. Solve for the value(s) of  $x$  that make the function have a value of 4, ie solve for:

$$x^2 - 10x + 25 = 4 \quad \text{what values of } x \text{ work?}$$

g.  $x = \underline{\hspace{2cm}}$  and  $\underline{\hspace{2cm}}$



h. Domain:

Range: