

Quiz Week 7

For the following **quadratic** function:

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

a. Make a representative sketch of the function. Significant points should be in correct quadrants.

b. State the Domain and the Range

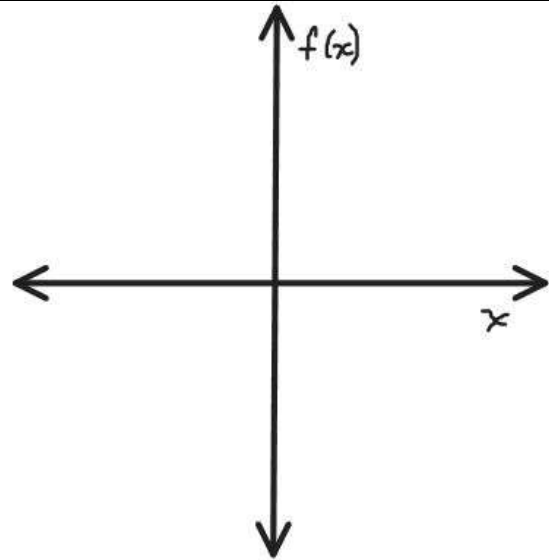
$$\{ \text{_____} < x < \text{_____} \}$$

$$\{ \text{_____} < f(x) < \text{_____} \}$$

c. Indicate on the sketch and state the following.

Vertex: (_____, _____)

Axis of Symmetry: $x = \text{_____}$



d. Indicate on the sketch and state:

y – intercept: (_____, _____)

'zeros' [x- intercept(s)] if any

(_____, _____) ; (_____, _____)

e. State the minimum *or* maximum value of the function: _____

f. Solve for x:

$$-10 = -1x^2 + 2x - 1$$

x= _____

For the following **exponential** function:

$$f(x) = 20 * 0.5^x$$

a. Make a representative sketch of the function. Significant points should be in correct quadrants.

b. State the Domain and the Range

$$\{ \text{_____} < x < \text{_____} \}$$

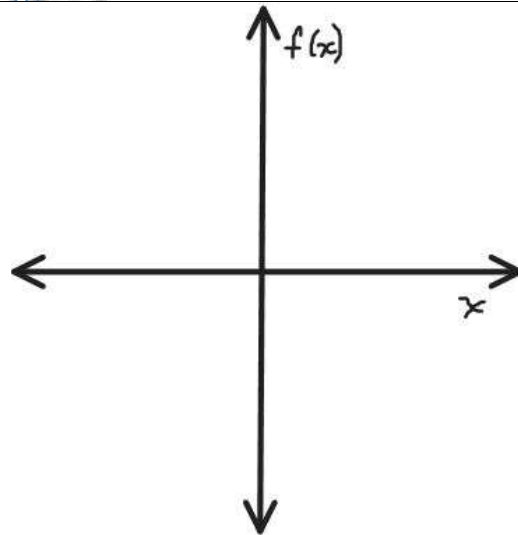
$$\{ \text{_____} < f(x) < \text{_____} \}$$

c. Indicate on the sketch and state the following.

Asymptote: $y = \text{_____}$

Axis of Symmetry: $x = \text{_____}$

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d. Indicate on the sketch and state:

y – intercept: (_____, _____)

'zeros' [x- intercept(s)] if any

(_____, _____) ; (_____, _____)

e. state the minimum or maximum value of the function if any:

f. Solve for x.

$$2.5 = 20 * 0.5^x$$

x = _____