Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ December 5, 2017

Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CC Algebra

**Graphical Features Practice**

**1.** Given the function y = f(x) defined by the graph below, answer the following questions.

* 1. Find the value of each of the following:

$f(-6)$ $f(-10)$

$f(2)$ $f(-3)$

* 1. Find the input value(s) when:

$f(x) = 3$

 x =

$$f\left(x\right)= -3$$

x =

* 1. State the zeros of the function.
	2. State the domain \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the range \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. Absolute minimum value \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and absolute maximum value \_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. For how many values of x does *f(x) = -5*? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	5. Name one **interval** that is increasing; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and one that is decreasing: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Name one relative maximum (that is not the absolute) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and one relative minimum (that is not the absolute) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 1. Name one negative interval \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and one positive interval \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.** Given the graph below, answer the following questions.

1. What is the absolute maximum?
2. What is a relative minimum?
3. Why is there no absolute minimum?
4. What is the domain?
5. What is the range?
6. What are the coordinates of the zeroes?
7. Name an interval that is increasing.
8. Name an interval that is decreasing.
9. Name an interval that is positive.
10. Name an interval that is negative.



**3.** Given the graph below, answer the following questions.

1. What is both the minimum and the maximum?
2. What is the domain?
3. What is the range?
4. What is the zero?
5. What is the y-intercept?
6. Name an interval that is increasing.
7. Name an interval that is decreasing.
8. Name an interval that is positive.
9. Name an interval that is negative.



**4.** Given the graph below, find the following.

a. Domain:

b. Range:

c. y-intercept:

d. Zeroes:

e. Absolute min:

f. Absolute max:

g. Relative min coordinate:

h. Relative max coordinate:

i. Increasing interval:

j. Decreasing interval:

k. Positive interval:

l. Negative interval:

m. f(1) =



**5.** Given the graph below, find the following.

a. Domain:

b. Range:

c. y-intercept:

d. Zeroes:

e. Absolute min:

f. Absolute max:

g. Relative min coordinate:

h. Relative max coordinate:

i. Increasing interval:

j. Decreasing interval:

k. Positive interval:

l. Negative interval:

m. f(x)= 4; x =

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**6.** Create your own graph and have your partner find the following.

a. Domain:

b. Range:

c. y-intercept:

d. Zeroes:

e. Absolute min:

f. Absolute max:

g. Relative min coordinate:

h. Relative max coordinate:

i. Increasing interval:

j. Decreasing interval:

k. Positive interval:

l. Negative interval:

