Math 4 Function Notation Name: _____

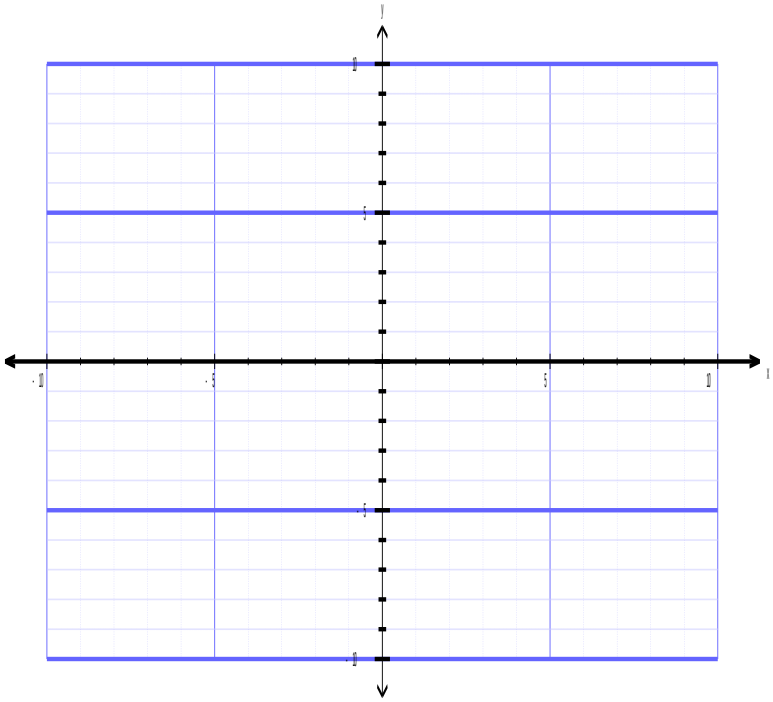
1. Given the function $f(x) = 3x + 5$

a) Evaluate $f(0)$

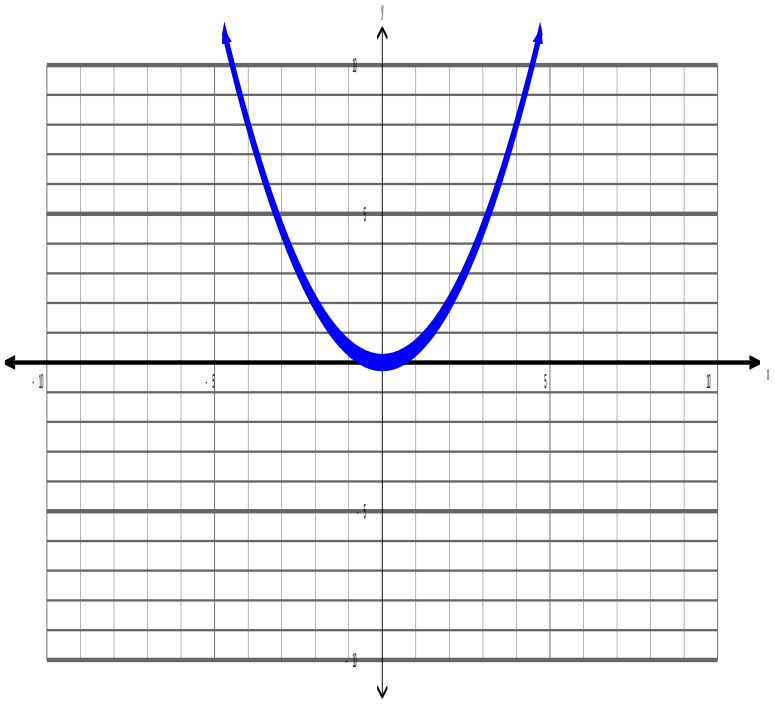
b) Evaluate $f(2)$

c) Evaluate $f(-5)$

d) Knowing that $f(x)$ is a linear function, use your results to parts (a), (b) and (c) to graph the function below. Be sure to include arrows at each end!



2. Given the function $f(x) = 0.5x^2$ and its graph shown below:



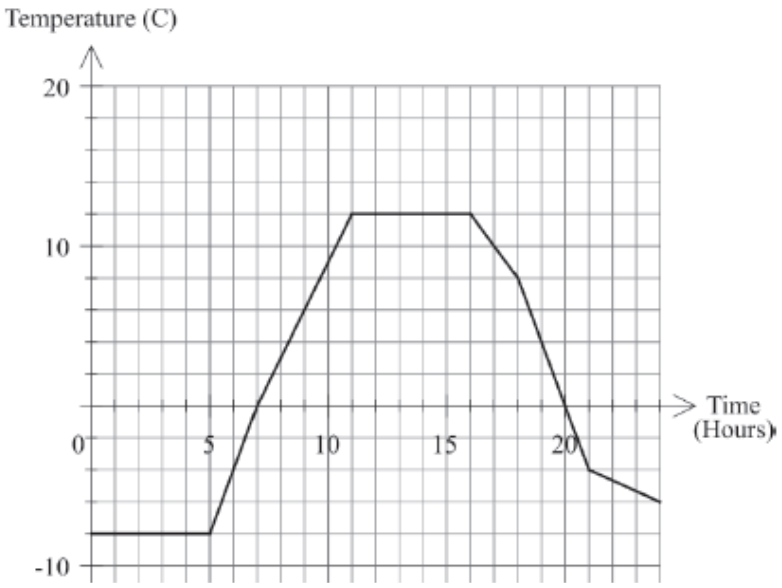
a) Using the graph, approximate *f(0), f(1), f(-1), f(2), f(-2)*

b) Use the above rule to check your answers to part (a)

c) If the value of *f(x)* is 8, what are the possible **values** of *x*? Use both the graph and the rule given above to check that you are correct.

Practice on Function Notation Name: _____

1. Given function T(x) graphed below:



a) Evaluate T(15)

b) Evaluate T(9)

c) When is this function constant?

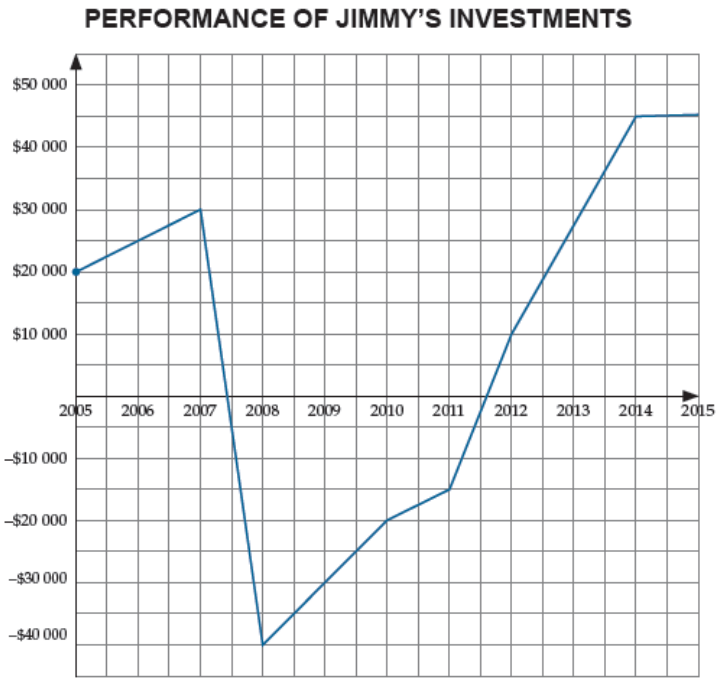
d) When is T(x) = 0?

e) When is T(x)= - 8?

f) When is T(x) = -4?

g) When is T(x) = 10?

2. Given function I(x) graphed below:



a) Evaluate I(2008)

b) Evaluate I(2012)

c) When is this function constant?

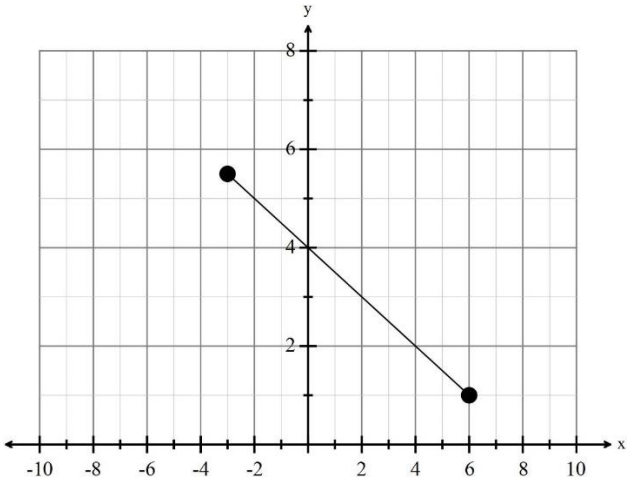
d) When is I(x) = 0?

e) When is I(x)= $45 000?

f) When is I(x) = $30 000?

g) When is I(x) = -$45 000?

3. Given function f(x) graphed below:



a) Evaluate f(4)

b) Evaluate f(9)

c) Evaluate f(0)

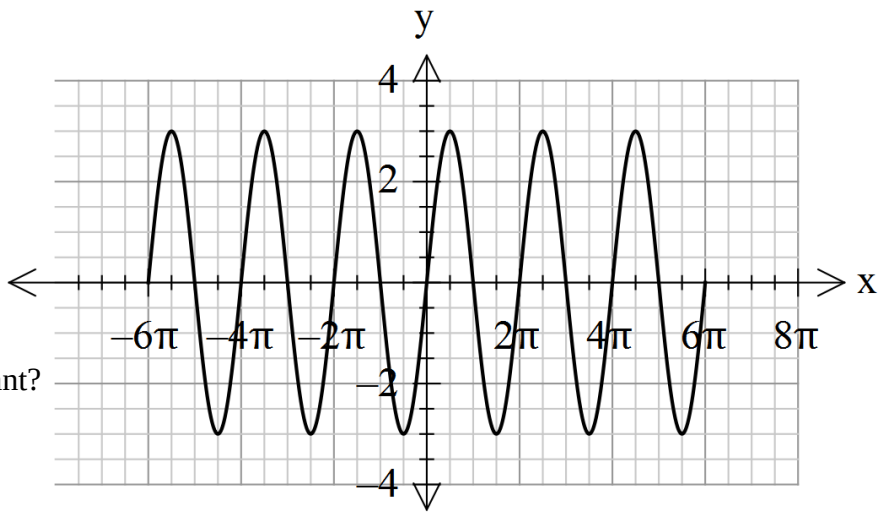
d) When is f(x) = 0?

e) When is f(x)= 4?

f) When is f(x) = -3?

g) When is f(x) = 6?

4. Given function g(x) graphed below:



a) Evaluate g(0)

b) Evaluate g(9)

c) When is this function constant?

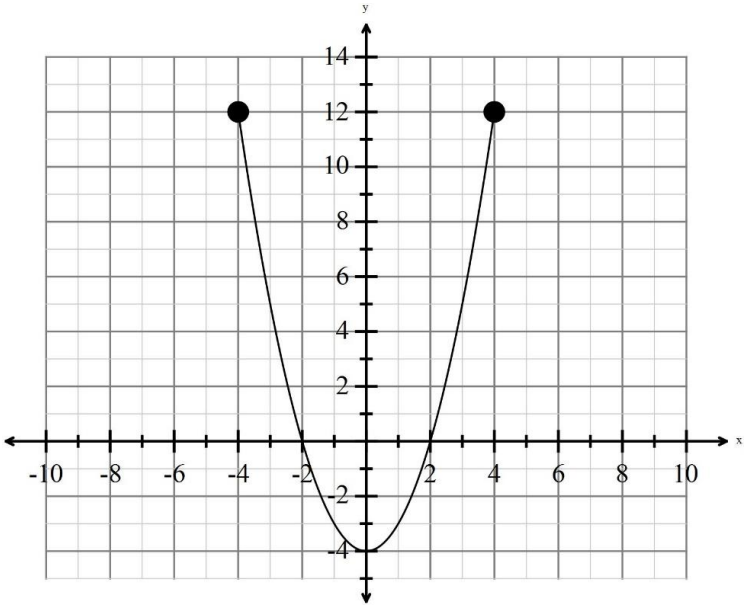
d) When is g(x) = 0?

e) When is g(x)= - 8?

f) When is g(x) = -4?

g) When is g(x) = 4?

5. Given function h(x) graphed below:



a) Evaluate h(4)

b) Evaluate h(-2)

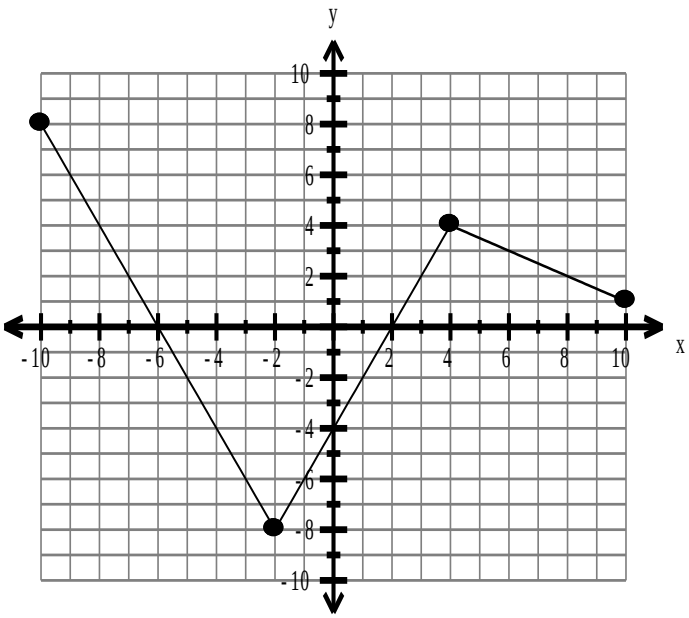
c) When is this function constant?

d) When is h(x) = 0?

e) When is h(x)= - 4?

f) When is h(x) = 12?

6.



a) Evaluate f(4)

b) Evaluate f(-2)

c) When is f(x) = 0?

d) What are the zeroes of this function?

e) When is f(x)= - 4?

f) What is f(0)?

g) What is the y-intercept of this function?

7. Given $g(x) = -5x - 60$

   a) What is the $g(-2)$?

   b) Evaluate $g(5)$.

   c) What is/are the x-intercept(s)?

   d) What is the y-intercept?

   e) What is/are the zero(s)?

   f) What is the initial value?

   g) When is $g(x) = 120$?

8. Given $g(x) = -4x^2 + 36$

a) When is $g(x) = 20$?

b) Evaluate $g(-2)$.

c) What is/are the x-intercept(s)?

d) What is the y-intercept?

e) What is/are the zero(s)?

f) What is the initial value?

g) What is $g(0)$?

9. Given $g(x) = x^2 - 5x + 4$

a) What is g(-3)?

b) Evaluate g(-5).

c) What is/are the x-intercept(s)?

d) What is the y-intercept?

e) What is/are the zero(s)?

f) What is the initial value?

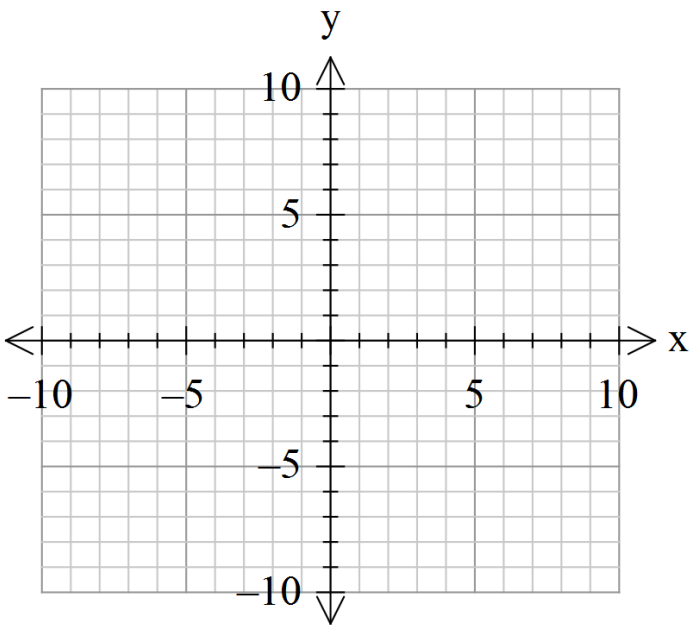
g) What is g(0)?

10. Given the function $f(x) = 2x + 3$

a) Evaluate:

$f(-2)$
$f(-1)$
$f(0)$
$f(1)$
$f(2)$

b) Graph each of the coordinate on the Cartesian Plane below:



c) State the properties of the function above.

Domain: Range:

Variation: Maximum :

zeros : Minimum:

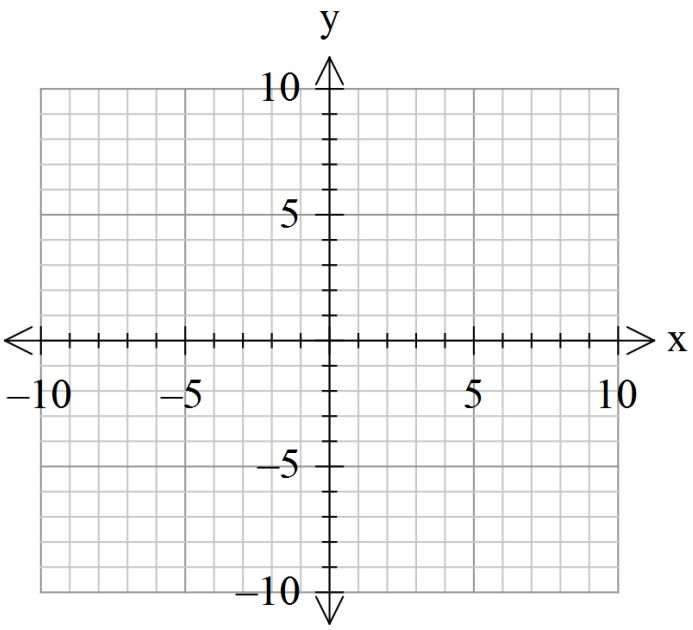
Signs: y-intercept:

11. Given the function $f(x) = -2x + 3$

a) Evaluate:

$f(-2)$
$f(-1)$
$f(0)$
$f(1)$
$f(2)$

b) Graph each of the coordinate on the Cartesian Plane below:



c) State the properties of the function above.

Domain: Range:

Variation: Maximum :

zeros : Minimum:

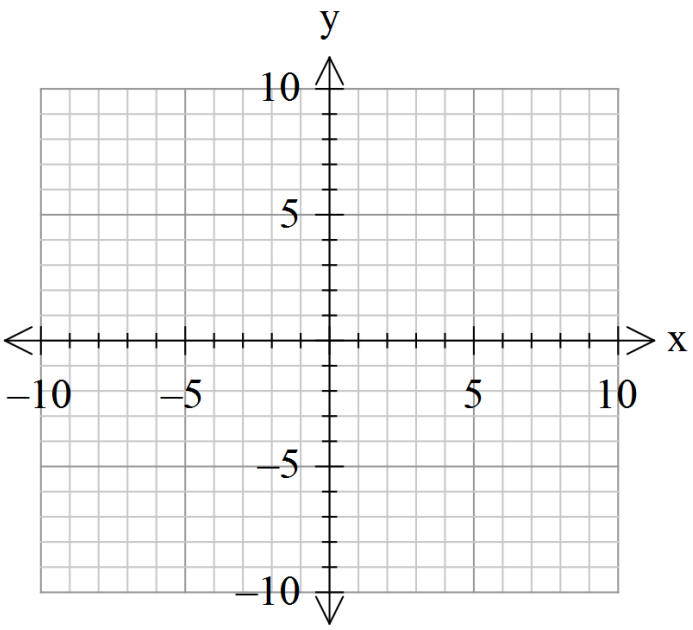
Signs: y-intercept:

12. Given the function $f(x) = 2x - 3$

a) Evaluate:

$f(-2)$
$f(-1)$
$f(0)$
$f(1)$
$f(2)$

b) Graph each of the coordinate on the Cartesian Plane below:



c) State the properties of the function above.

Domain: Range:

Variation: Maximum :

zeros : Minimum:

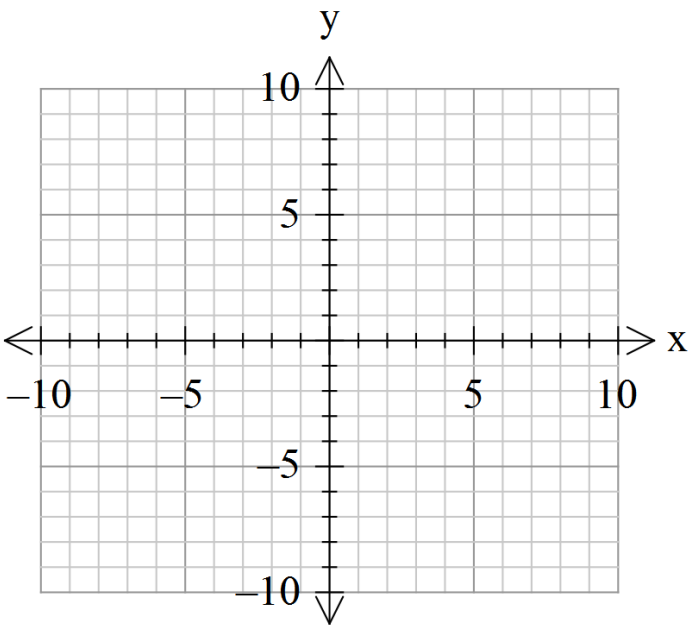
Signs: y-intercept:

13. Given the function $f(x) = -2x - 3$

a) Evaluate:

$f(-2)$
$f(-1)$
$f(0)$
$f(1)$
$f(2)$

b) Graph each of the coordinate on the Cartesian Plane below:



c) State the properties of the function above.

Domain: Range:

Variation: Maximum :

zeros : Minimum:

Signs: y-intercept: