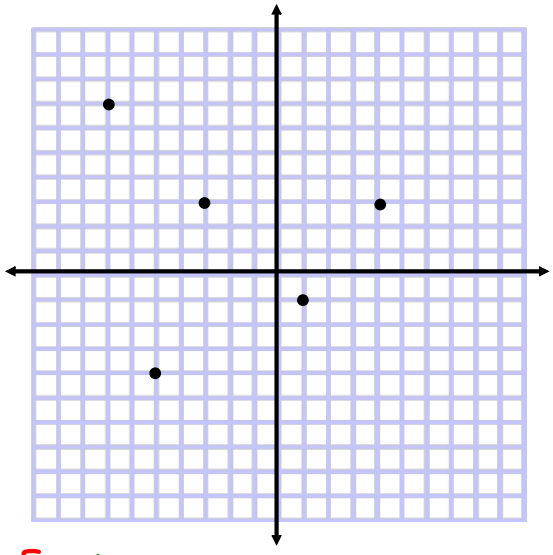
Do Now:

1) Write down the coordinates of the following points.



2) Is this relation a function?

(4,3) (-7,7)

(1,-1)

(-5,4)

(-3,3)

yes it is a function.

Dec 4-11:04 AM

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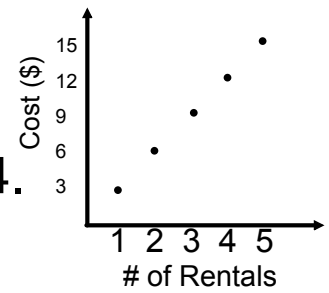
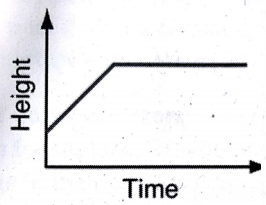
1. Graph C
2. Graph B
3. Graph A

4.



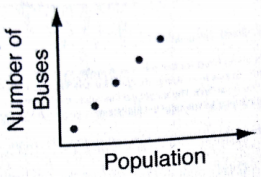
Discrete

1.



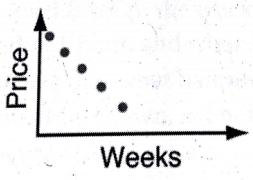
continuous

3.



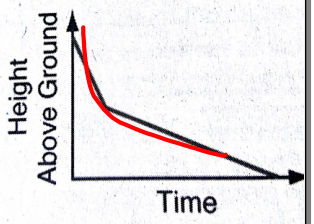
discrete

2.



discrete

4.



continuous

Dec 4-11:08 AM

Inputs & Outputs from a Graph

What are inputs?

x-values
domain
the value you put into a function

What are outputs?

y-values
range
the value calculated from a given input

Dec 4-11:08 AM

Label the input and output.

$$f(-2) = 6$$

input

output

Coordinate (-2, 6)

Dec 4-11:08 AM

Given f(x) = 2x - 2,

find f(-3)

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

$f(-3) = -6 - 2$

$f(-3) = -8$

input output

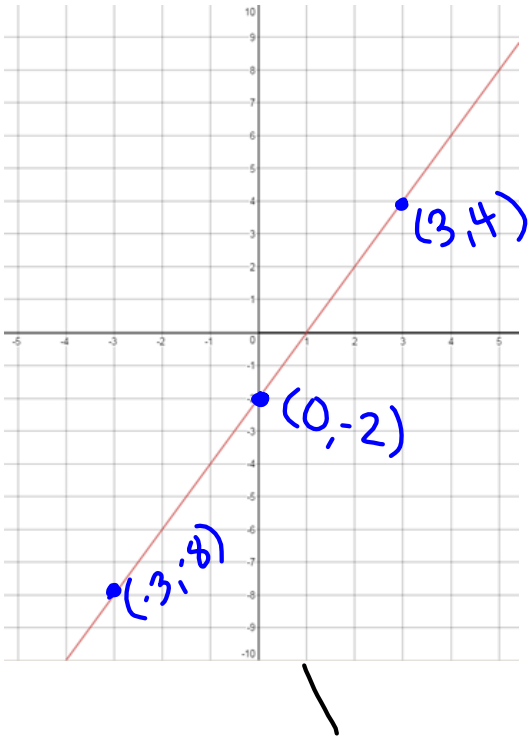
Dec 4-3:17 PM

Find the following outputs:

f(-3) = -8

f(0) = -2

f(3) = 4



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What is the input when the output is:

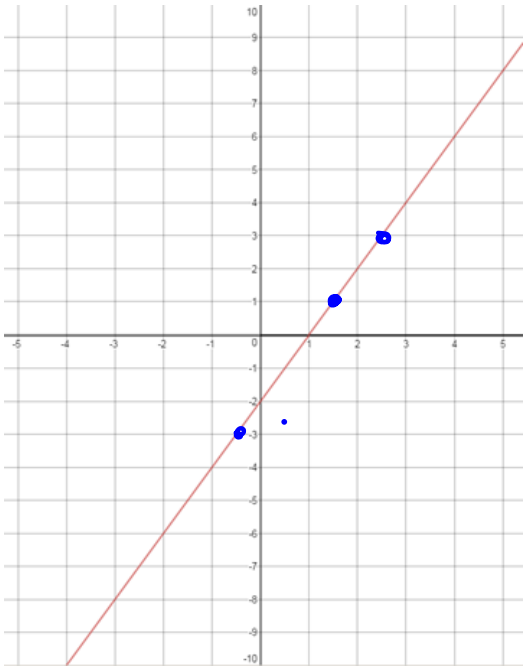
f(x) = 1 $x = 1.5$

f(x) = 3 $x = 2.5$

f(x) = -3 $x = -0.5$ or $x = -\frac{1}{2}$

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

$f(x) = 0$ $x = 1$



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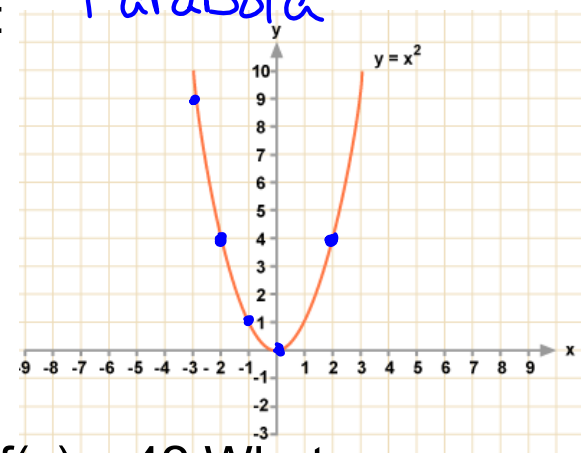
Find the following outputs:

f(0) = 0

f(-1) = 1

f(-3) = 9

Parabola



For how many inputs is f(x) = 4? What are they?

2 inputs for $f(x) = 4$

$x = -2$ & 2

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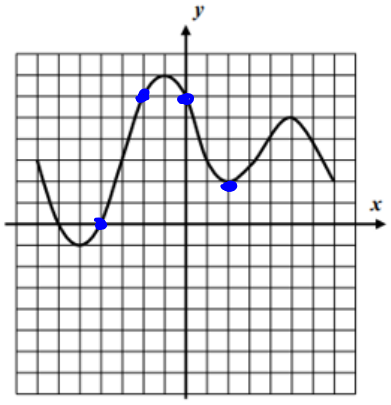
f(-2) = 6

f(0) = 6

f(2) = 2

f(-4) = 0



Do you notice any other part of the graph with the same output as f(-4)? Yes

f(-6) = 0

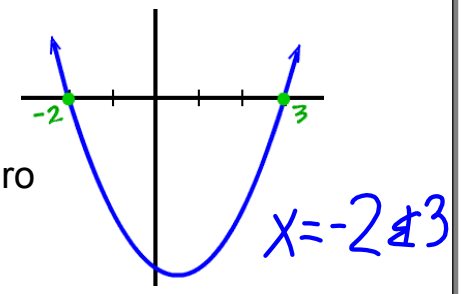
This is a special feature of the graph called the "zeros"

Nov 22-10:52 AM

Zeros of a Graph

The point(s) where the graph crosses or touches the x axis.

The inputs are producing an output of zero



x = -2, 3

(-2, 0) (3, 0)

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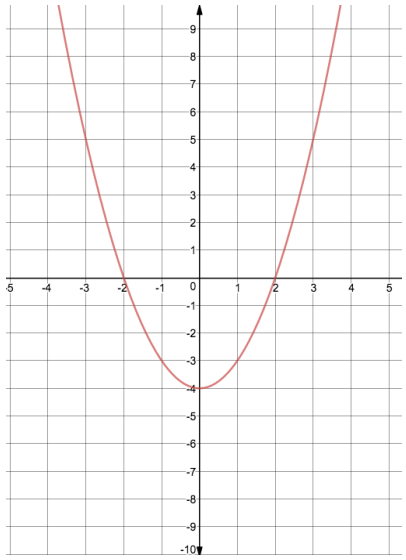
Find the following outputs:

f(-3) = 5

f(-2) = 0

f(0) = -4



For how many inputs is f(x) = 0? What are they? What happens when f(x) = 0?

There are two inputs. They are x = 2 and -2

f(2) = 0

f(-2) = 0

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