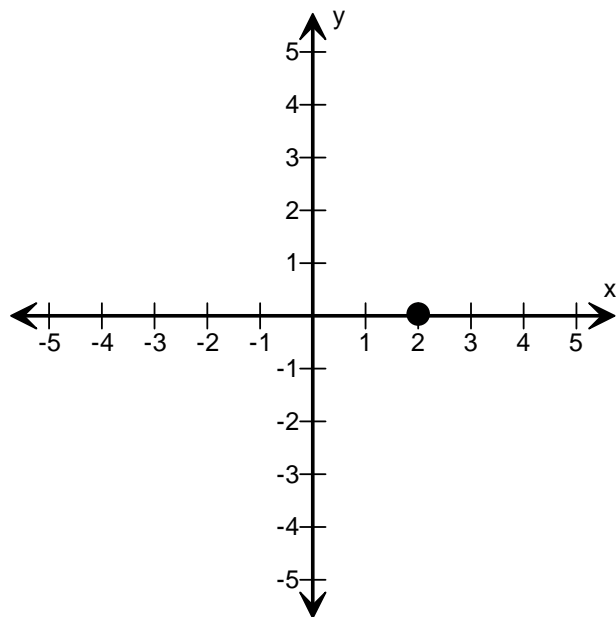


## Vertical Lines:

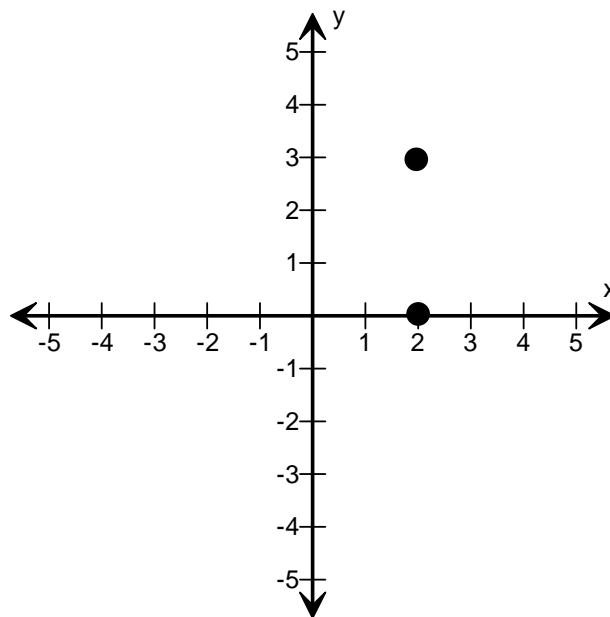
A vertical line is a line whose equation is of the form  $x=k$ . Let's look at a picture to see what this means. Because the letter  $y$  is not present, it can be anything.

Example: Graph  $x=2$ .

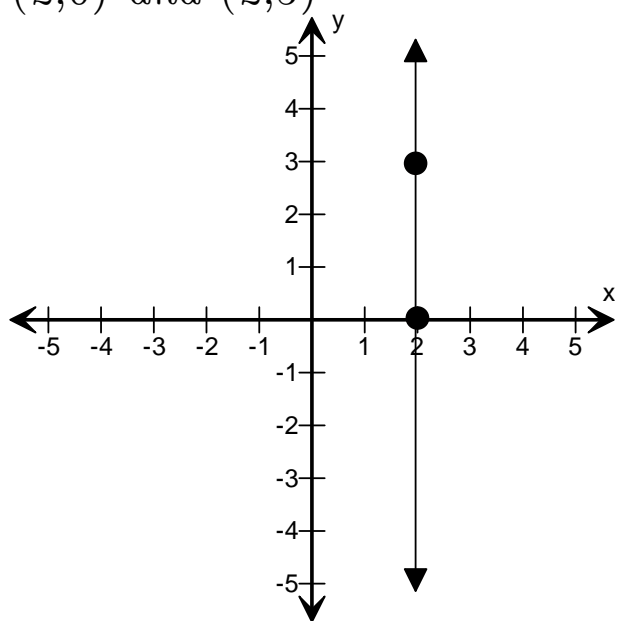
1) Because  $y$  can be anything, choose  $y=0$ . Plot  $(2,0)$ .



2) Because  $y$  can be anything, choose  $y=3$ . Plot  $(2,3)$ .



3) Draw a vertical line through  $(2,0)$  and  $(2,3)$



4) Write 3 other points that clearly indicate what it means to say that the  $y$ -coordinate can be anything.

$(2, 5)$

$(2, -1)$

$(2, -2)$

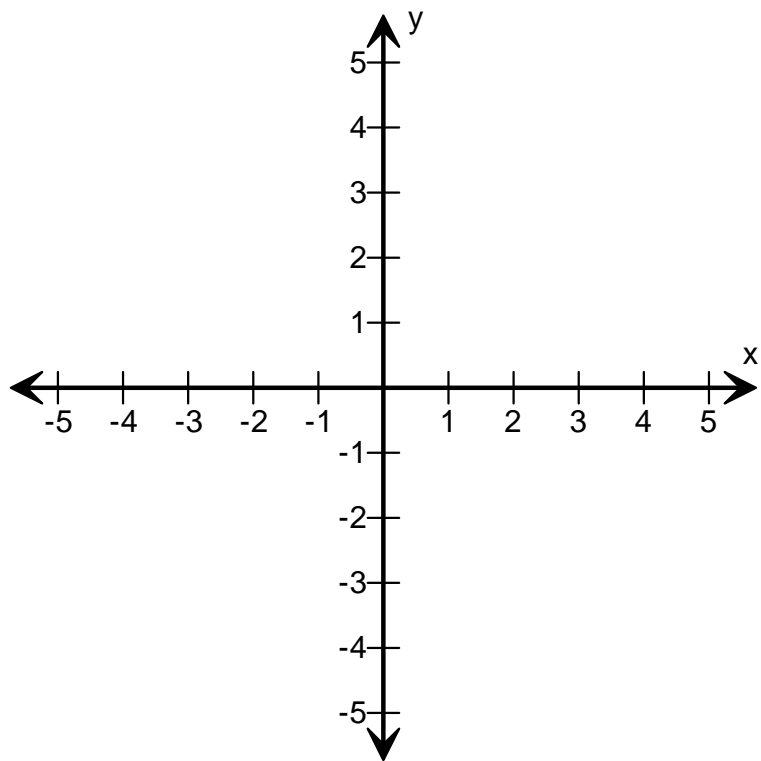
Name:

Date:

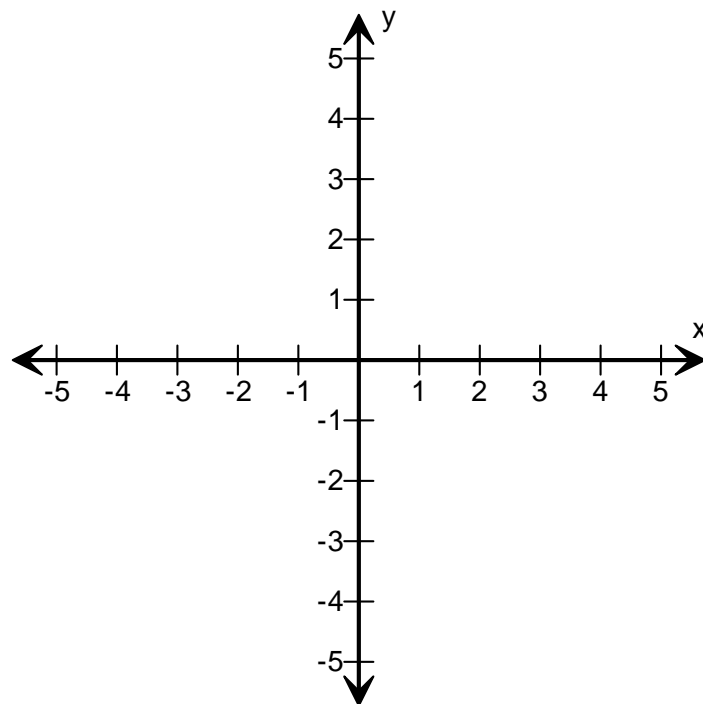
Due Date:

Example: Graph  $x=3$ .

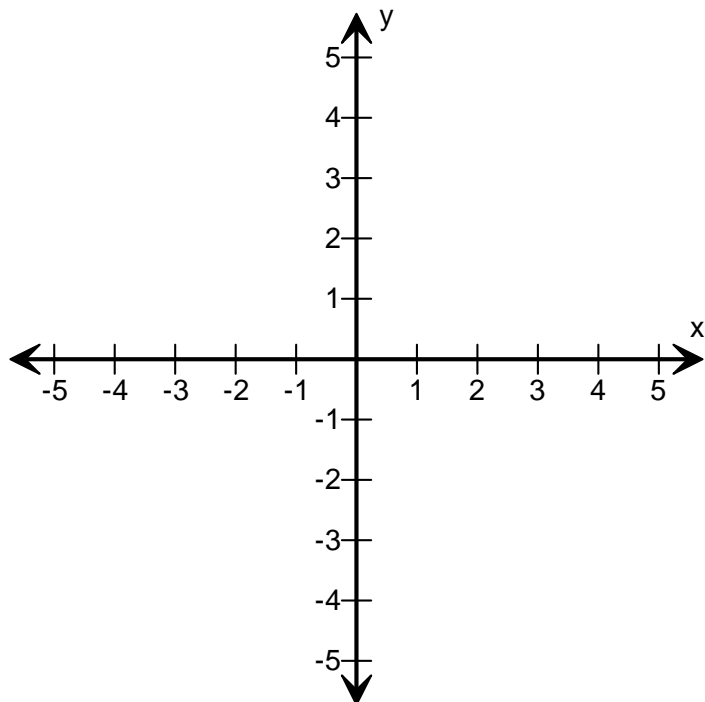
1) Because  $y$  can be anything,  
choose  $y=$ \_\_. Plot  $(3,)$ .



2) Because  $y$  can be anything,  
choose  $y=$ \_\_. Plot  $(3,)$ .



3) Draw a vertical line through  
 $(3,)$  and  $(3,)$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $y$ -coordinate can be anything.

$(3,)$

$(3,)$

$(3,)$

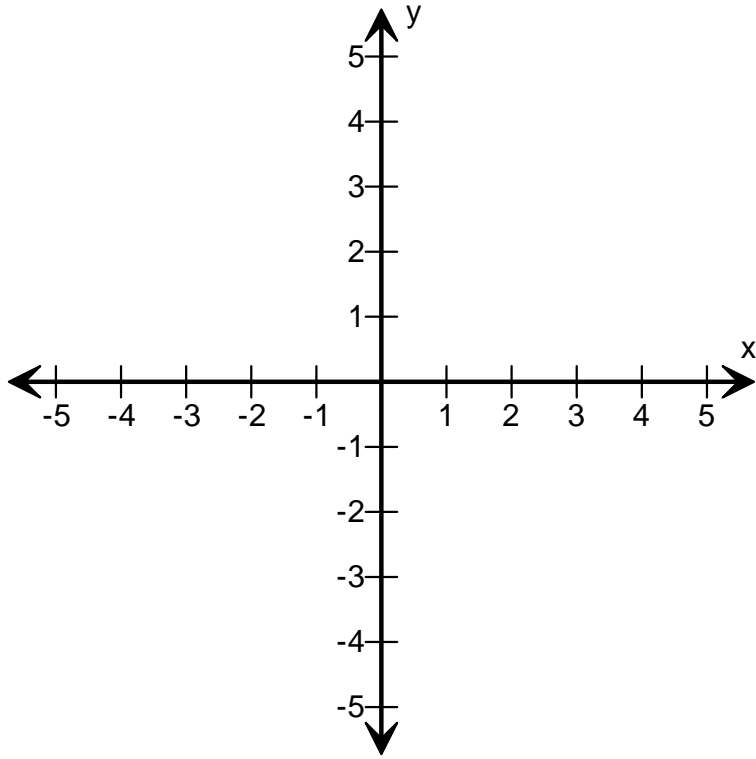
Name: \_\_\_\_\_

Date: \_\_\_\_\_

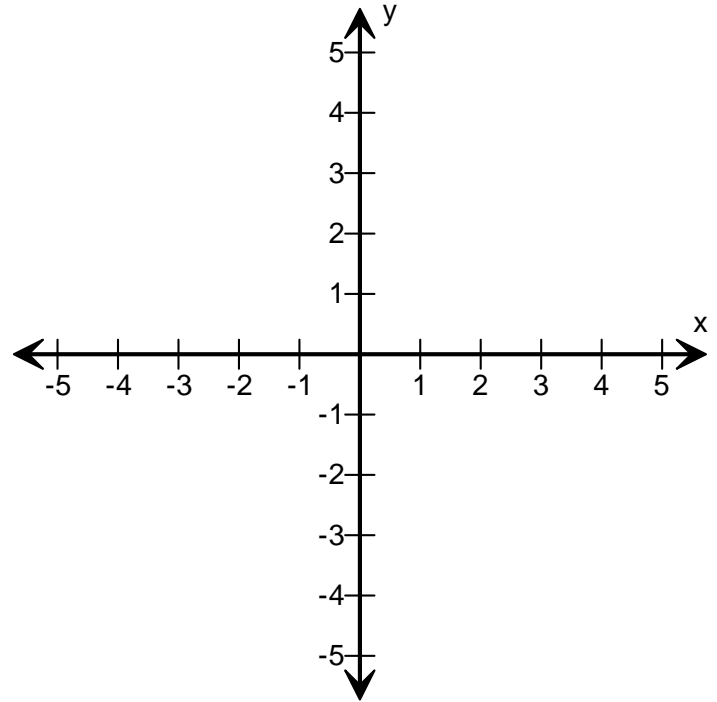
Due Date: \_\_\_\_\_

Example: Graph  $x=4$ .

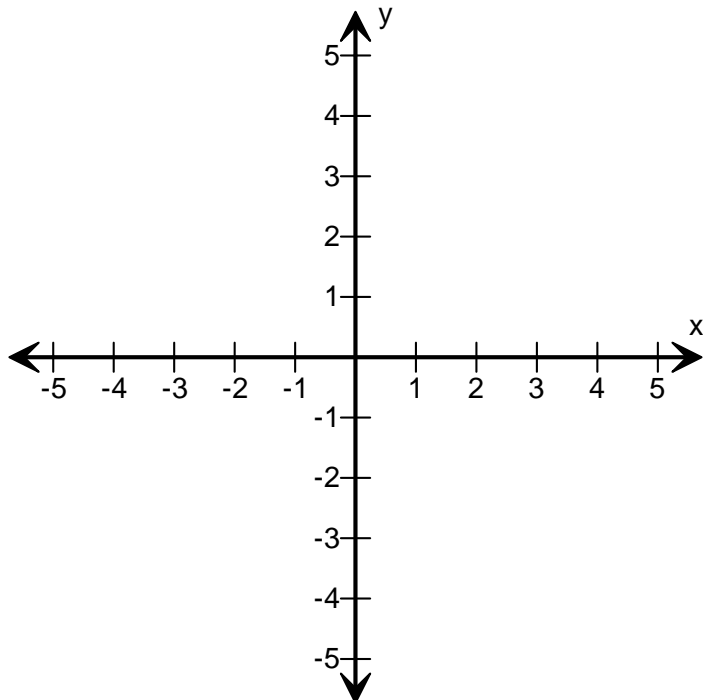
1) Because  $y$  can be anything,  
choose  $y=$ \_\_. Plot  $(4,)$ .



2) Because  $y$  can be anything,  
choose  $y=$ \_\_. Plot  $(4,)$ .



3) Draw a vertical line through  
 $(4,)$  and  $(4,)$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $y$ -coordinate can be anything.

$(4,)$

$(4,)$

$(4,)$

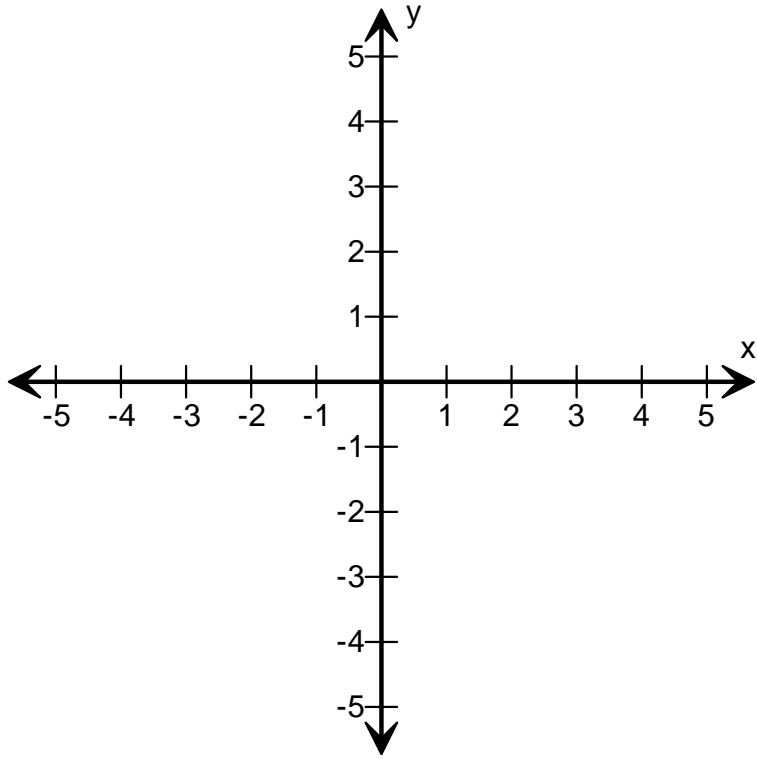
Name:

Date:

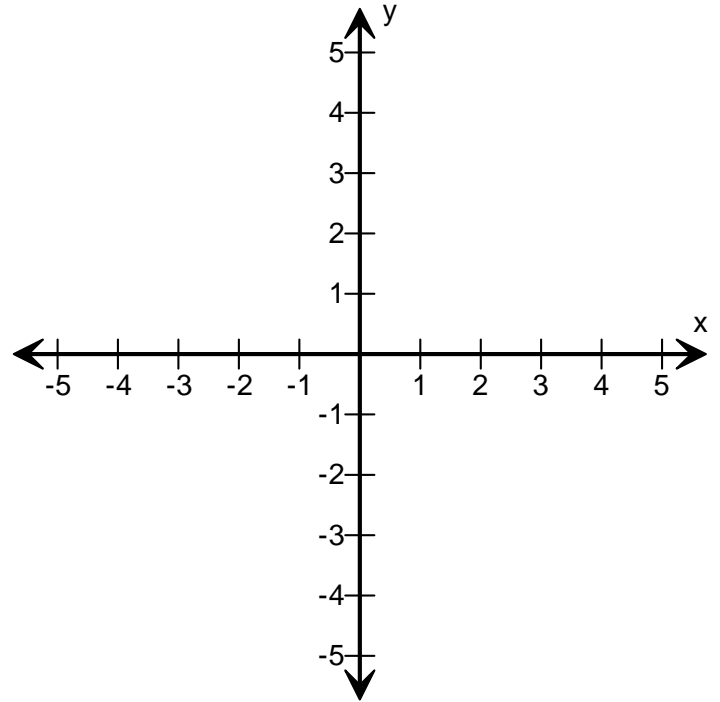
Due Date:

Example: Graph  $x = -2$ .

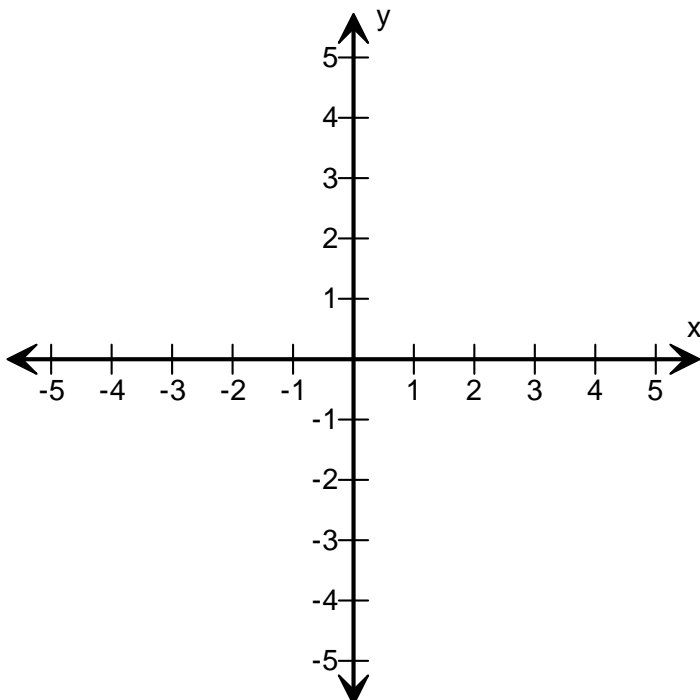
1) Because  $y$  can be anything,  
choose  $y = \underline{\hspace{1cm}}$ . Plot  $(-2, \underline{\hspace{1cm}})$ .



2) Because  $y$  can be anything,  
choose  $y = \underline{\hspace{1cm}}$ . Plot  $(-2, \underline{\hspace{1cm}})$ .



3) Draw a vertical line through  
 $(-2, \underline{\hspace{1cm}})$  and  $(-2, \underline{\hspace{1cm}})$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $y$ -coordinate can be anything.

$(-2, \underline{\hspace{1cm}})$

$(-2, \underline{\hspace{1cm}})$

$(-2, \underline{\hspace{1cm}})$

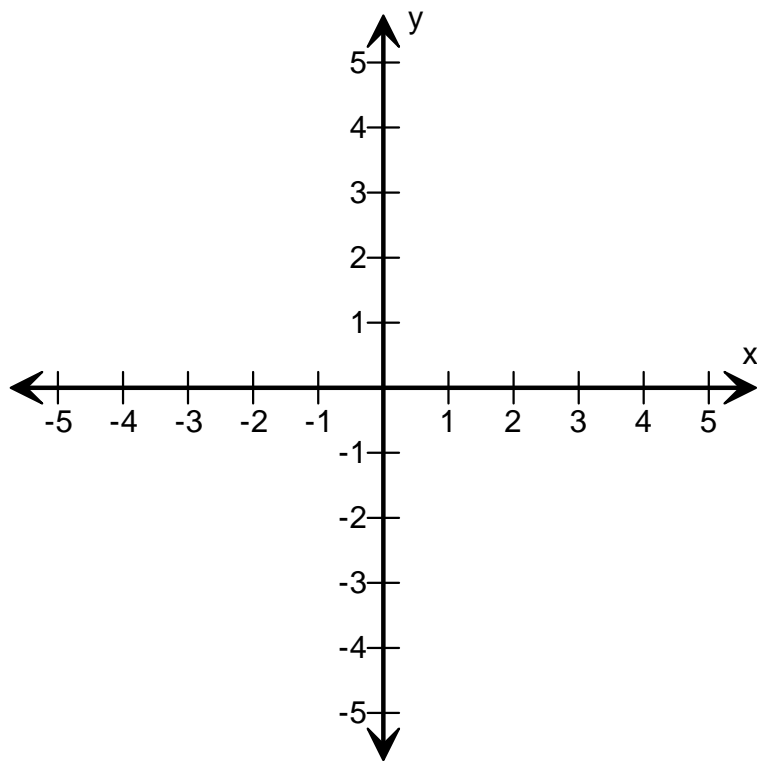
Name:

Date:

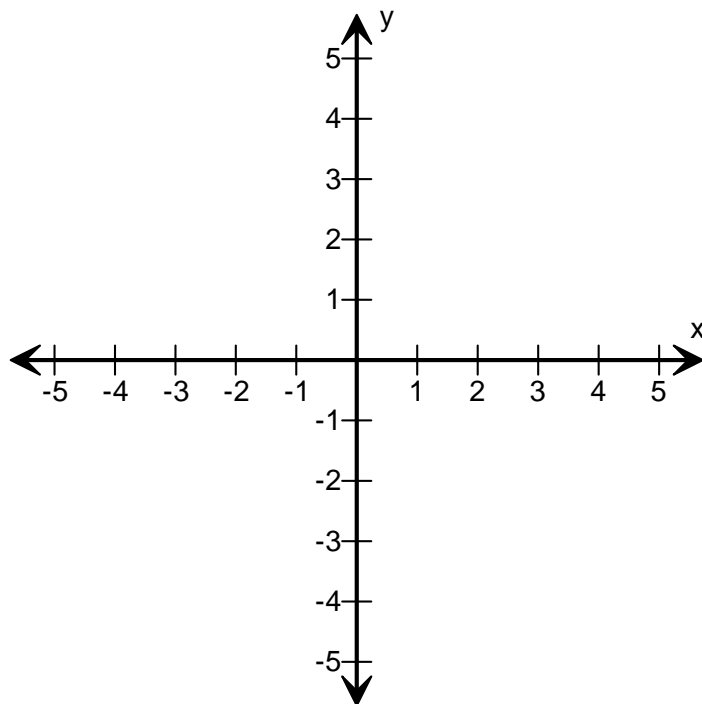
Due Date:

Example: Graph  $x = \underline{\hspace{1cm}}$ .

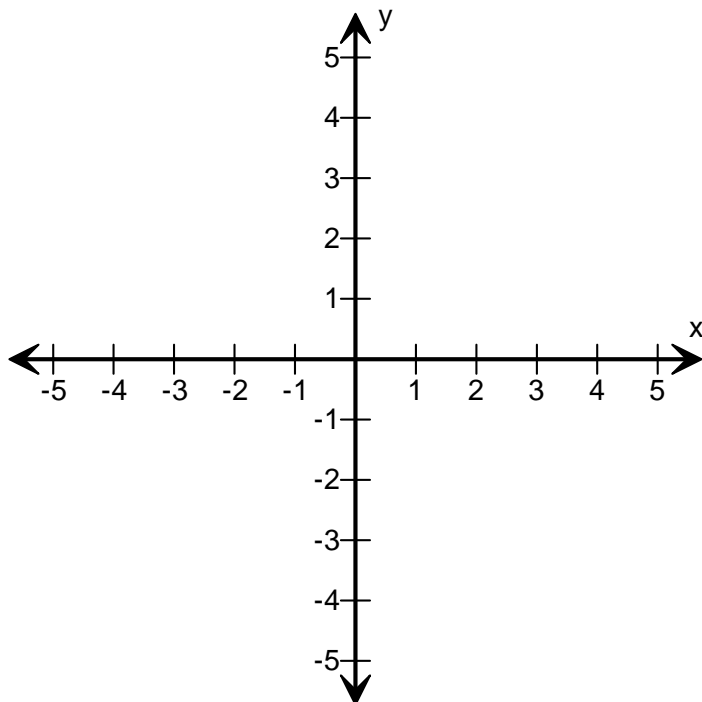
1) Because  $y$  can be anything,  
choose  $y = \underline{\hspace{1cm}}$ . Plot  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ .



2) Because  $y$  can be anything,  
choose  $y = \underline{\hspace{1cm}}$ . Plot  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ .



3) Draw a vertical line through  
 $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$  and  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $y$ -coordinate can be anything.

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

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

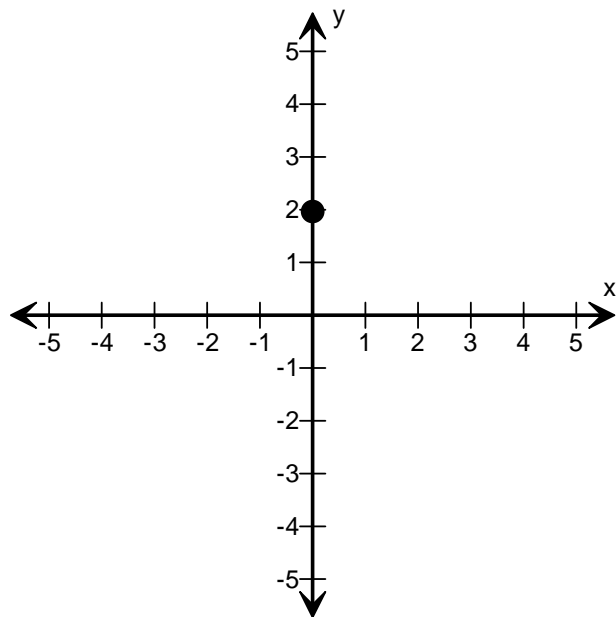
$(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$

## Horizontal Lines:

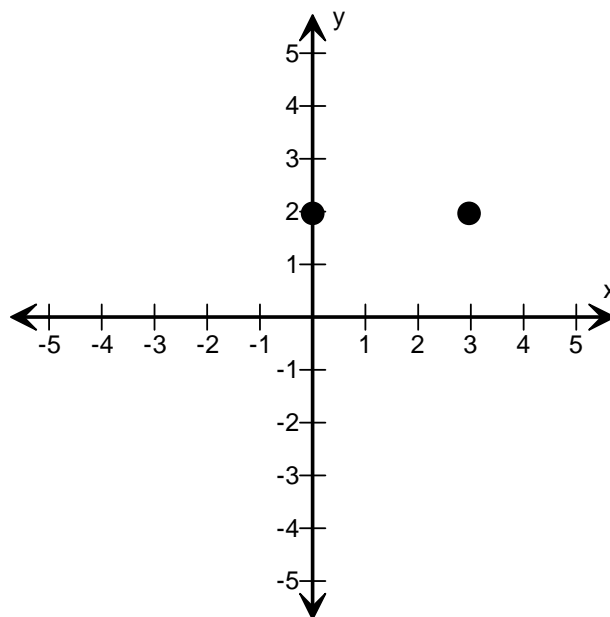
A horizontal line is a line whose equation is of the form  $y=k$ . Let's look at a picture to see what this means. Because the letter  $x$  is not present, it can be anything.

Example: Graph  $y=2$ .

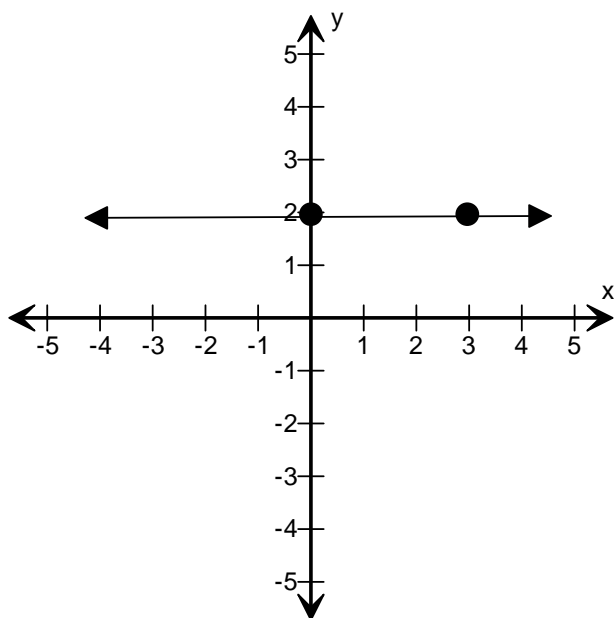
1) Because  $x$  can be anything, choose  $x=0$ . Plot  $(0,2)$ .



2) Because  $x$  can be anything, choose  $x=3$ . Plot  $(3,2)$ .



3) Draw a horizontal line through  $(0,2)$  and  $(3,2)$



4) Write 3 other points that clearly indicate what it means to say that the  $x$ -coordinate can be anything.

$(-1,2)$

$(2,2)$

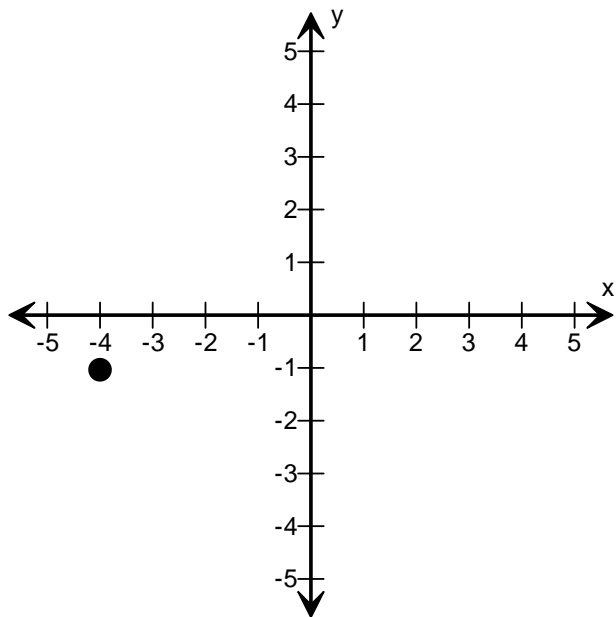
$(5,2)$

## Horizontal Lines:

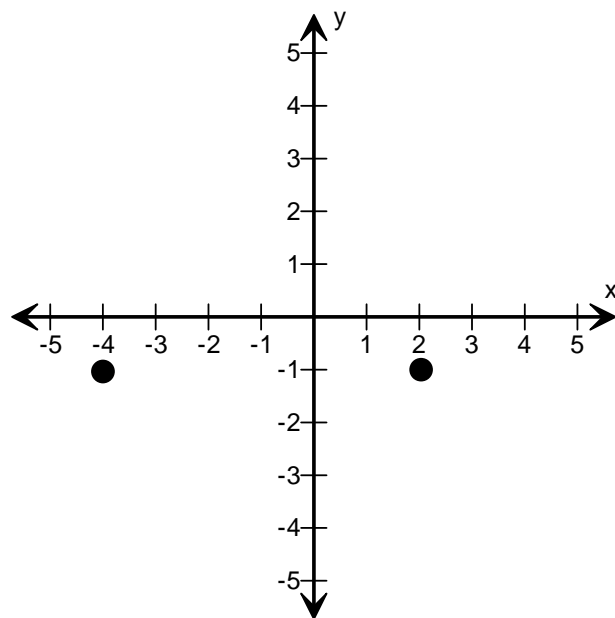
A horizontal line is a line whose equation is of the form  $y=k$ . Let's look at a picture to see what this means. Because the letter  $x$  is not present, it can be anything.

Example: Graph  $y=-1$ .

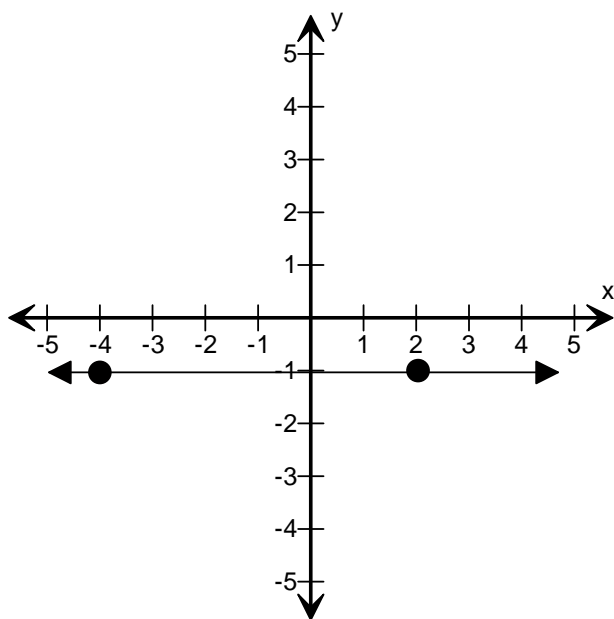
1) Because  $x$  can be anything, choose  $x=-4$ . Plot  $(-4,-1)$ .



2) Because  $x$  can be anything, choose  $x=2$ . Plot  $(2,-1)$ .



3) Draw a horizontal line through  $(-4,-1)$  and  $(2,-1)$



4) Write 3 other points that clearly indicate what it means to say that the  $x$ -coordinate can be anything.

$(-6,-1)$

$(0,-1)$

$(3,-1)$

Name:

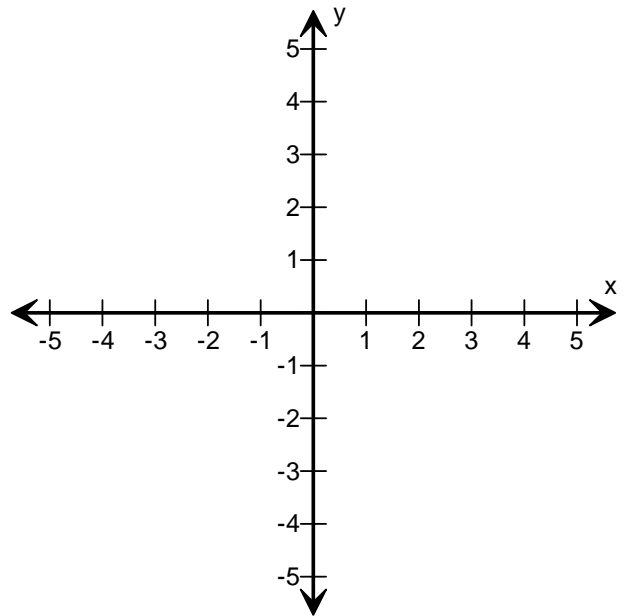
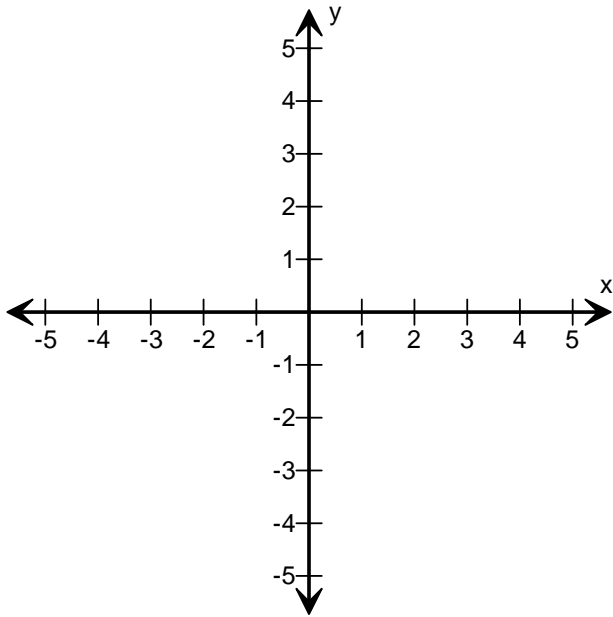
Date:

Date Due:

Example: Graph  $y = -5$ .

1) Because  $x$  can be anything,  
choose  $x = \underline{\quad}$ . Plot  $(\underline{\quad}, -5)$ .

2) Because  $x$  can be anything,  
choose  $x = \underline{\quad}$ . Plot  $(\underline{\quad}, -5)$ .



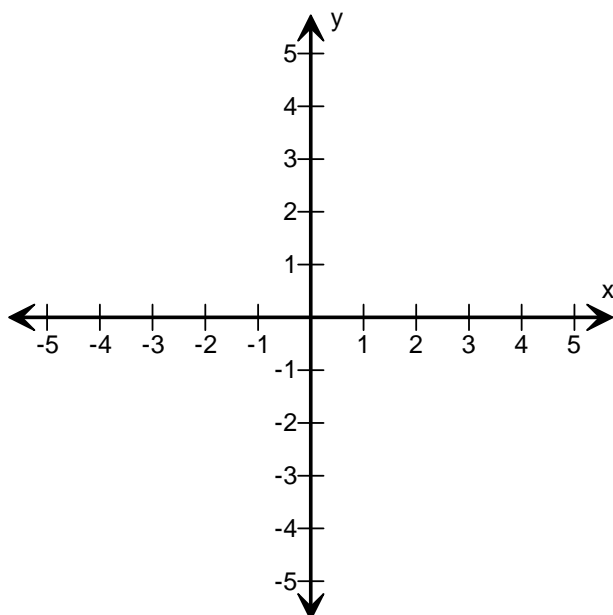
3) Draw a horizontal line through  
 $(\underline{\quad}, -5)$  and  $(\underline{\quad}, -5)$

4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $x$ -coordinate can be anything.

$(\underline{\quad}, -5)$

$(\underline{\quad}, -5)$

$(\underline{\quad}, -5)$





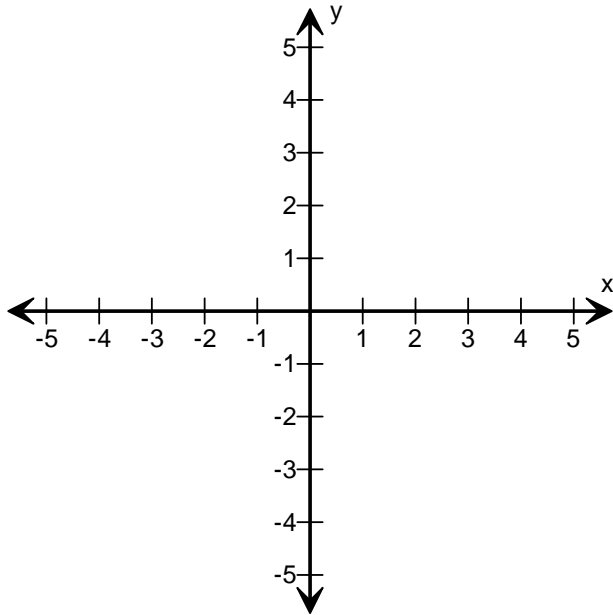
Name:

Date:

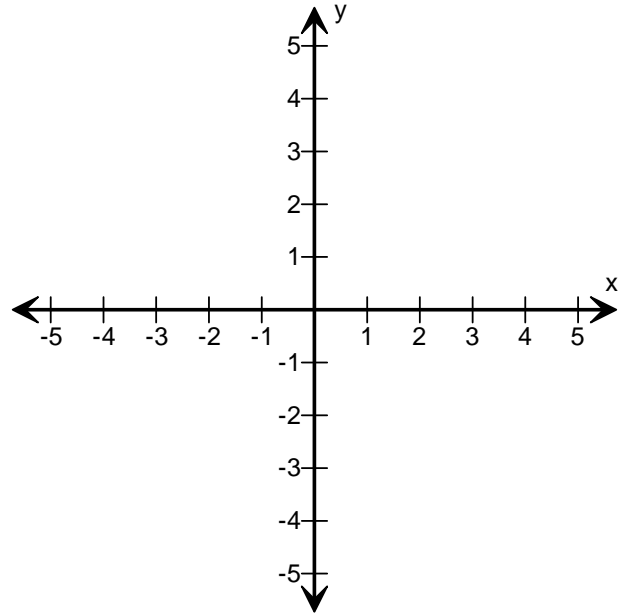
Date Due:

Example: Graph  $y=4$ .

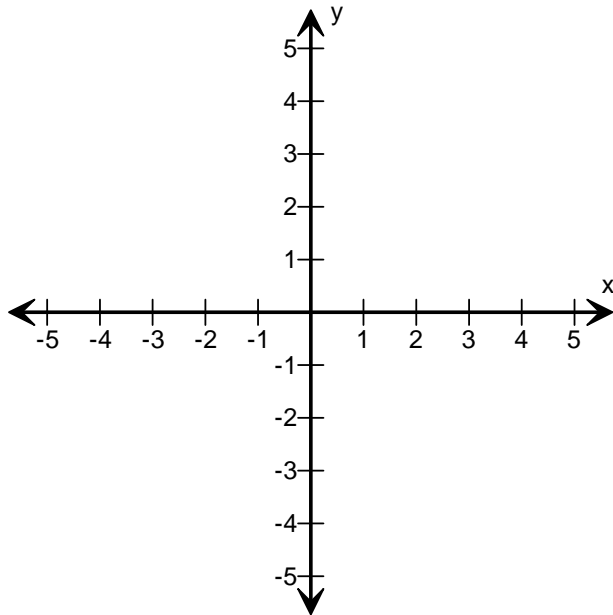
1) Because  $x$  can be anything,  
choose  $x=$ \_\_. Plot  $(\_,4)$ .



2) Because  $x$  can be anything,  
choose  $x=$ \_\_. Plot  $(\_,4)$ .



3) Draw a horizontal line through  
 $(\_,4)$  and  $(\_,4)$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $x$ -coordinate can be anything.

$(\_,4)$

$(\_,4)$

$(\_,4)$

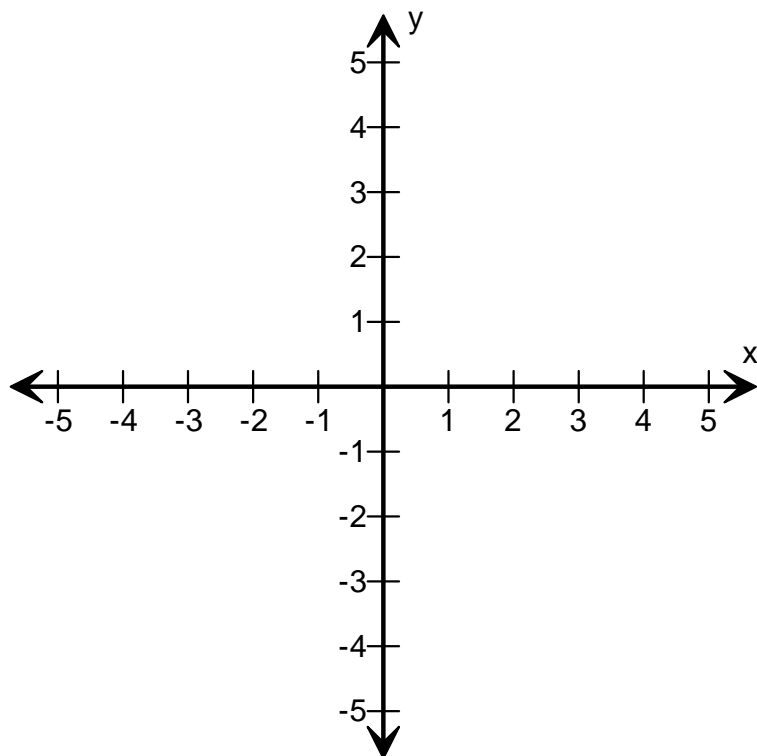
Name:

Date:

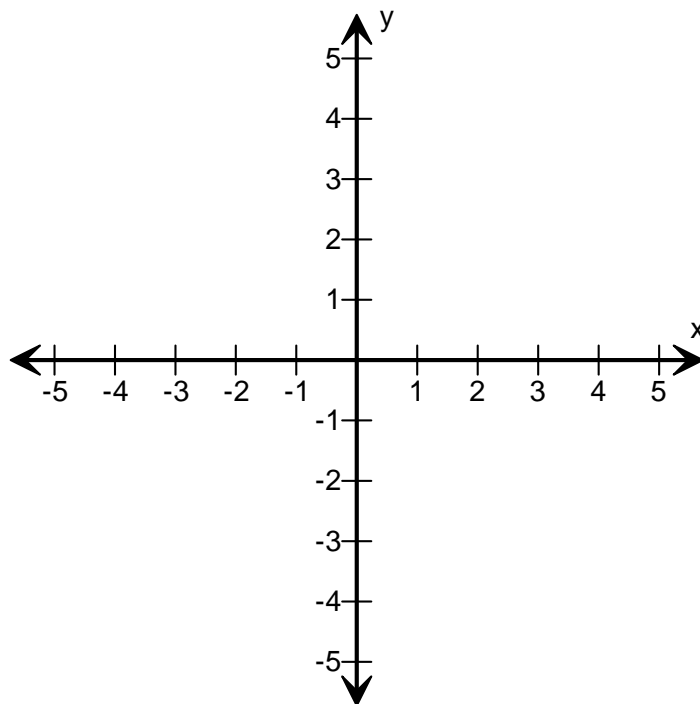
Due Date:

Example: Graph  $y = \_$ .

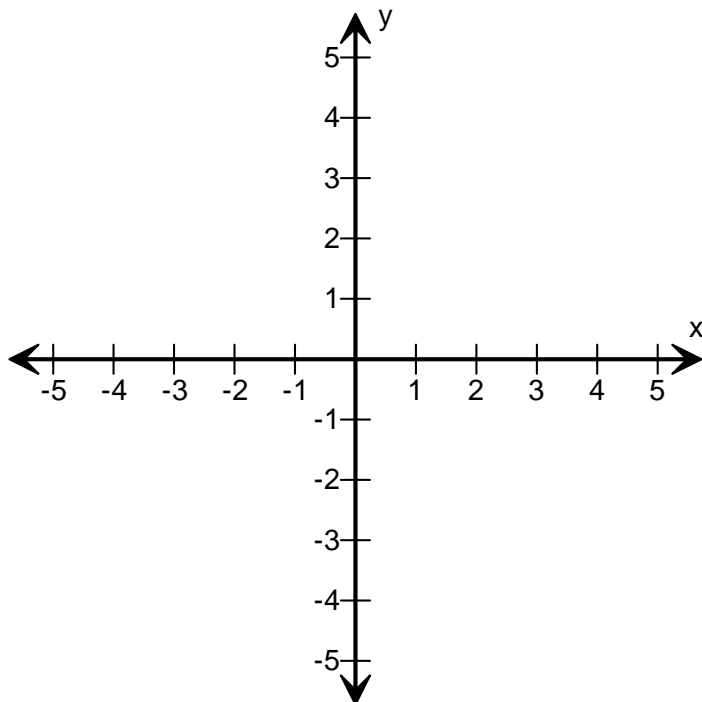
1) Because  $y$  can be anything,  
choose  $x = \_$ . Plot  $(\_, \_)$ .



2) Because  $y$  can be anything,  
choose  $x = \_$ . Plot  $(\_, \_)$ .



3) Draw a vertical line through  
 $(\_, \_)$  and  $(\_, \_)$



4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $x$ -coordinate can be anything.

$(\_, \_)$

$(\_, \_)$

$(\_, \_)$

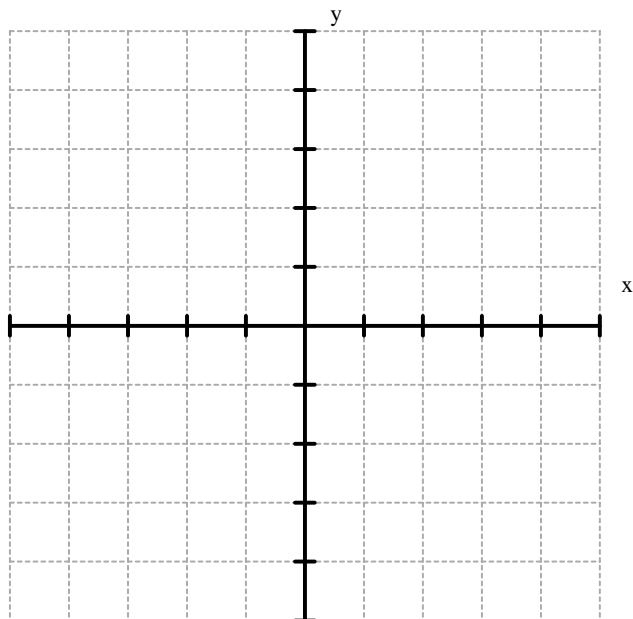
Name:

Date:

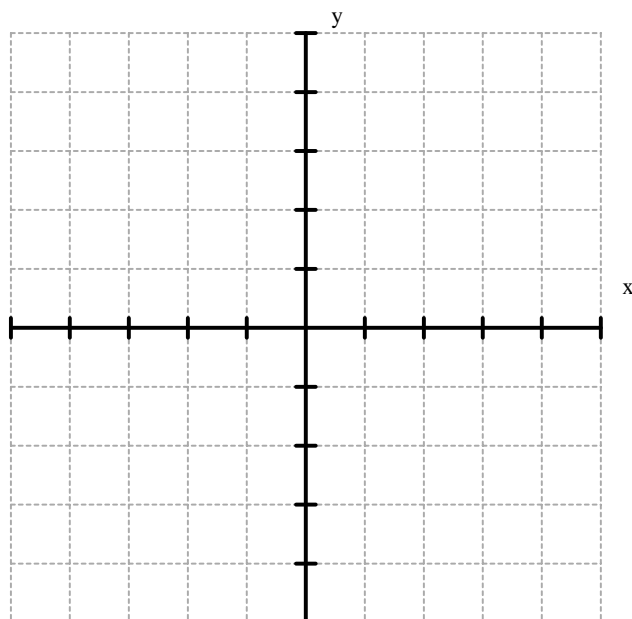
Due Date:

Example: Graph  $y = \underline{\hspace{1cm}}$ .

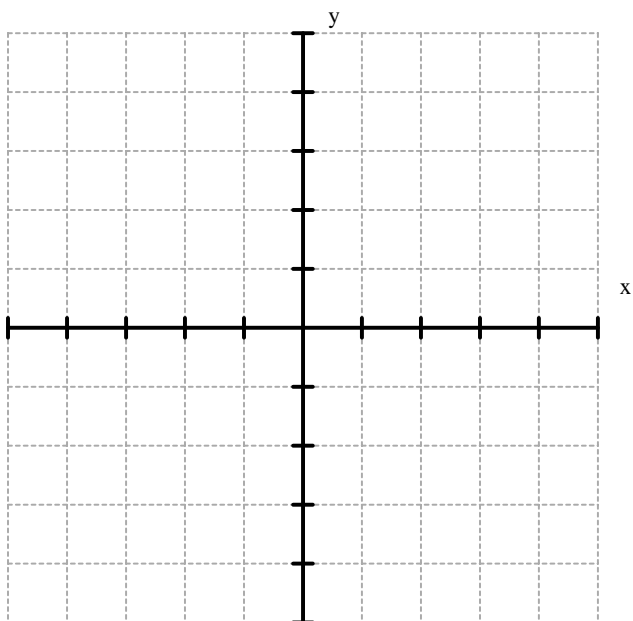
- 1) Because  $y$  can be anything,  
choose  $x = \underline{\hspace{1cm}}$ . Plot  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ .



- 2) Because  $y$  can be anything,  
choose  $x = \underline{\hspace{1cm}}$ . Plot  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$ .



- 3) Draw a vertical line through  
 $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$  and  $(\underline{\hspace{1cm}}, \underline{\hspace{1cm}})$



- 4) Write 3 other points that  
clearly indicate what it  
means to say that the  
 $x$ -coordinate can be anything.

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

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

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