

Name:

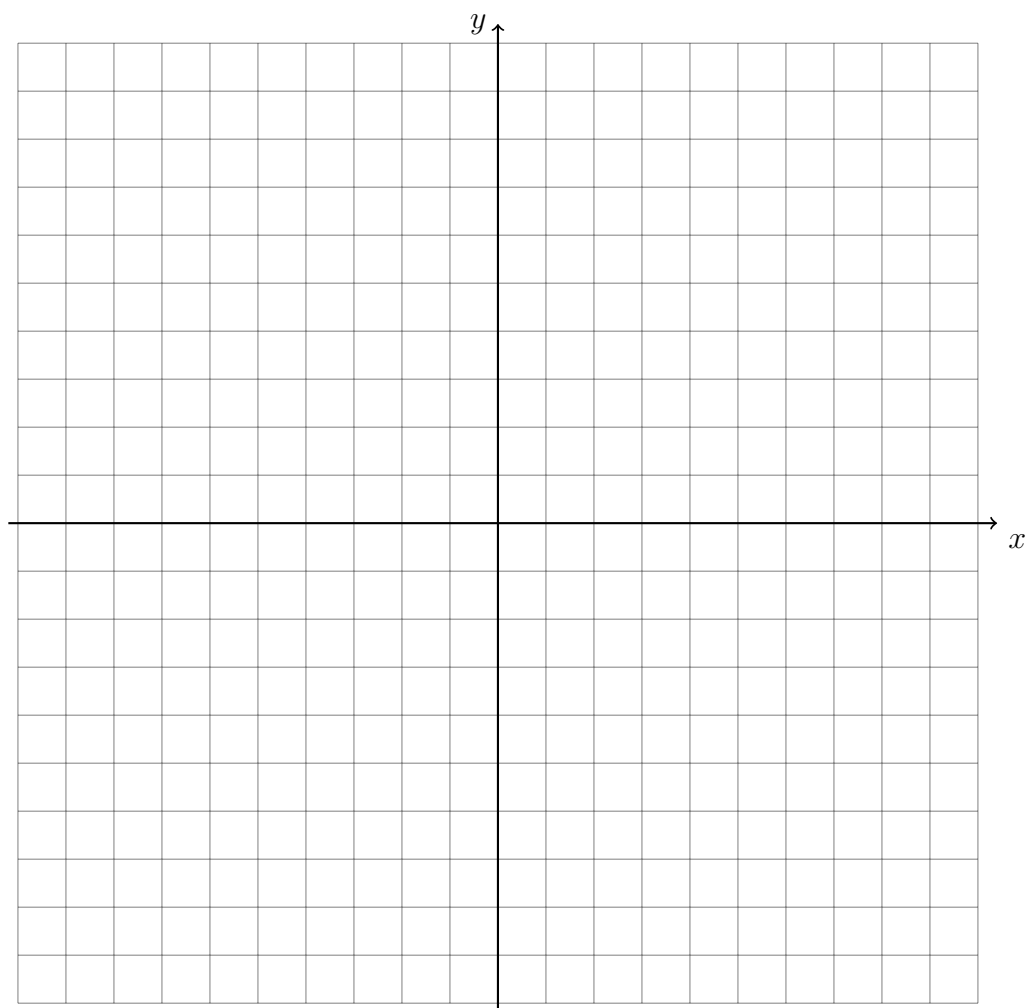
Classwork: Graphing inequalities

For graphs, use a pencil and straight edge. Label each line.

1. Solve for y , then graph the two inequalities.

$$y > \frac{1}{2}x + 2$$

$$3x - 2y \leq 8$$



Mark the solution set with a capital “S”.

2. Is the table represent a linear function? Justify your answer.

x	$f(x)$
-3	7
-2	2
-1	-1
0	-2
1	-1
2	2
3	7

Name: _____

Do Now: Graphing inequalities

Show your work. For graphs, use a pencil and straight edge. Graph the inequality after filling in the values in the blanks and circling the correct types.

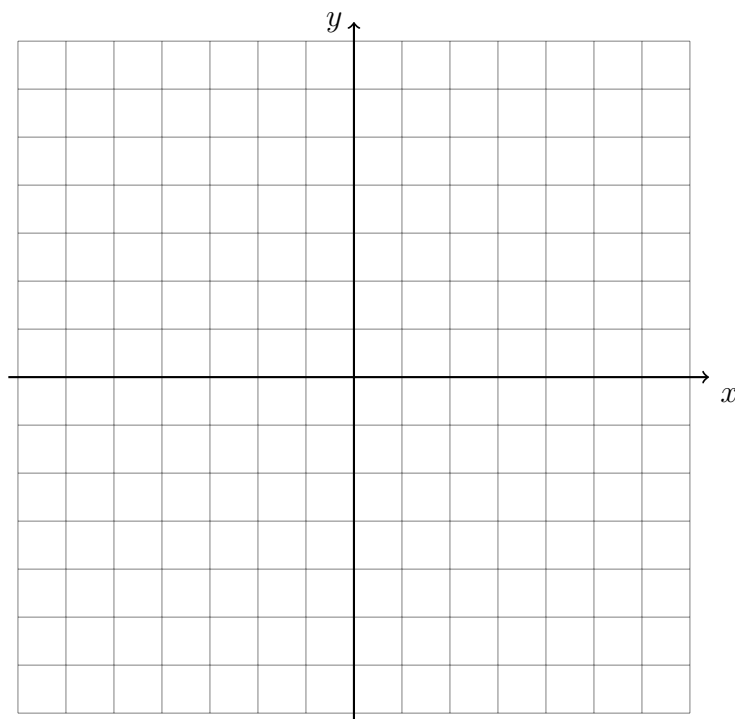
1. $\frac{3}{2}x - 2y \leq +2$

y -intercept $b =$ _____

Line: Solid (=) Dashed (\neq)

Slope $m =$ _____

Shading: Above ($y >$) Below ($y <$)



2. Solve for y , then complete. $\frac{3}{2}x - 3y \geq 6$

y -intercept $b =$ _____

Line: Solid (=) Dashed (\neq)

Slope $m =$ _____

Shading: Above ($y >$) Below ($y <$)

3. Graph the two inequalities after filling in the values in the blanks.

$$y \geq -3x + 1$$

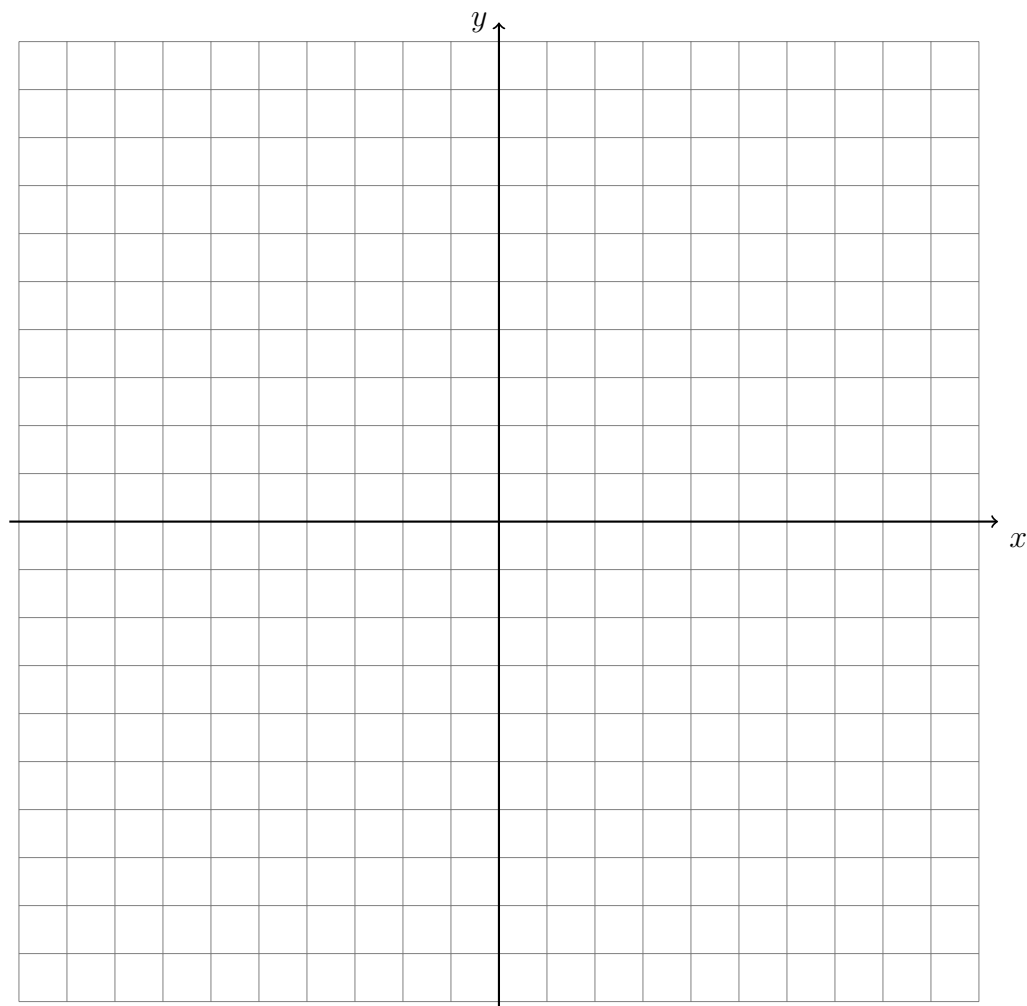
(a) y -intercept $b =$ _____

(b) Slope $m =$ _____

$$y < -\frac{3}{2}x - 2$$

(a) y -intercept $b =$ _____

(b) Slope $m =$ _____



Name: _____

Rate of change

4. Find the slope of the function from the ratio of the line differences.

(a)

x	$f(x)$
-2	-2
-1	0
0	2
1	4
2	6

Change in y = _____

Change in x = _____

Slope m = _____

(b)

x	$f(x)$
-4	9
-2	6
0	3
2	0
4	-3

Change in y = _____

Change in x = _____

Slope m = _____

5. Find the slope of the function. If the rate of change is not constant, write, "Non-linear. The rate of change is not constant."

(a)

x	$f(x)$
-3	0
-1	-2
0	-3
1	-4
3	-6

Slope m = _____

(b)

x	$f(x)$
-4	7
-2	5
0	3
2	5
4	7

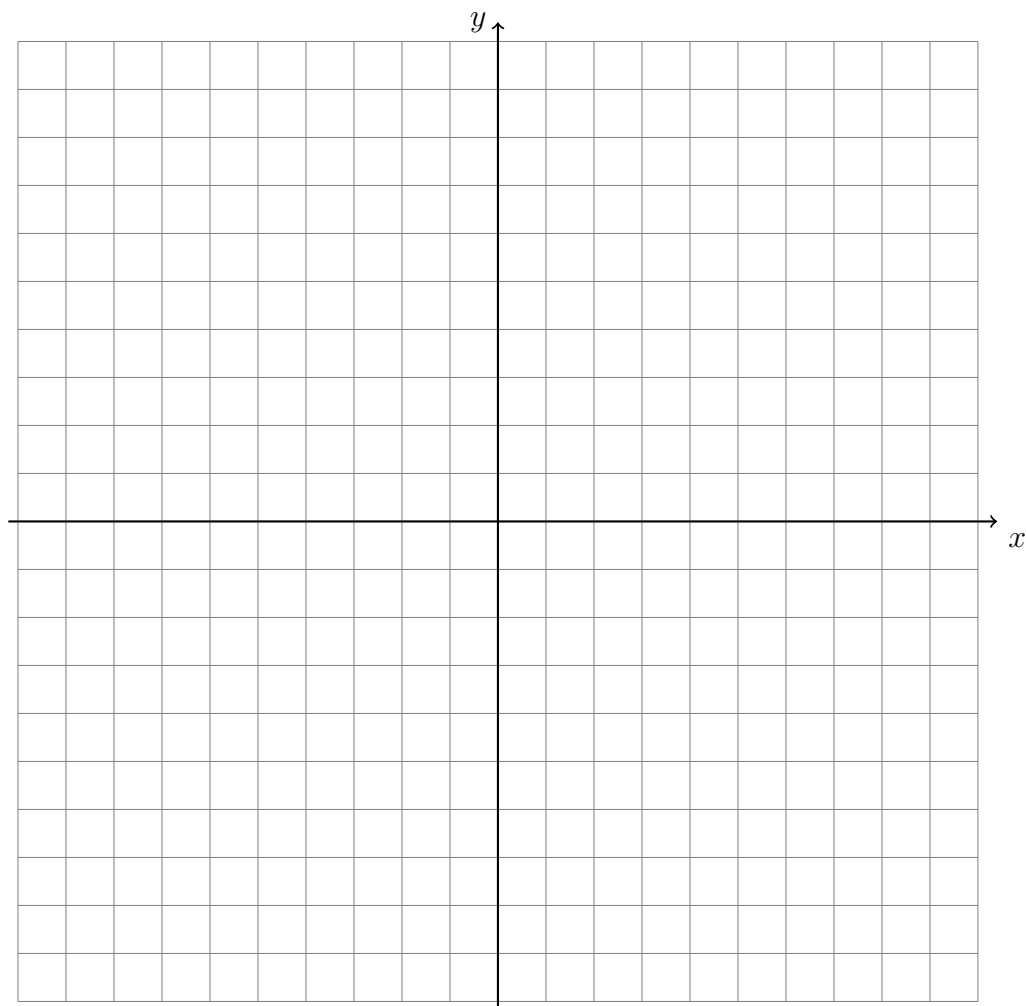
Slope m = _____

Graphing quadratic functions

6. Given the quadratic function $f(x) = x^2 - 2$, find the row differences.

x	$f(x)$
-3	7
-2	2
-1	-1
0	-2
1	-1
2	2
3	7

Graph the function as a line over the domain $-3 \leq x \leq 3$.



Name:

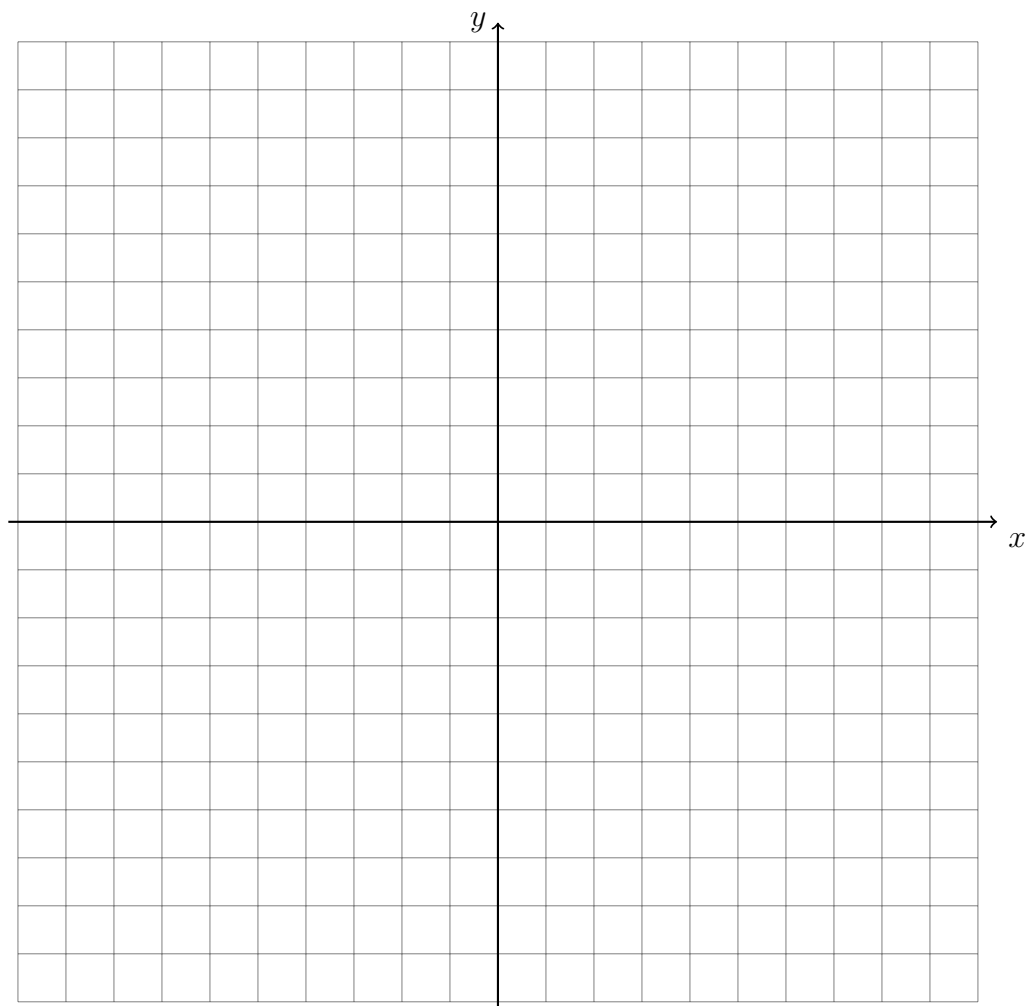
Pop Quiz: Graphing systems and inequalities

Use pencil for graph (1 point)

1. Solve for y , then graph the two lines. Label both lines and the solution to the system, the intersection, as a coordinate pair. (3 points)

$$y = 2x + 4$$

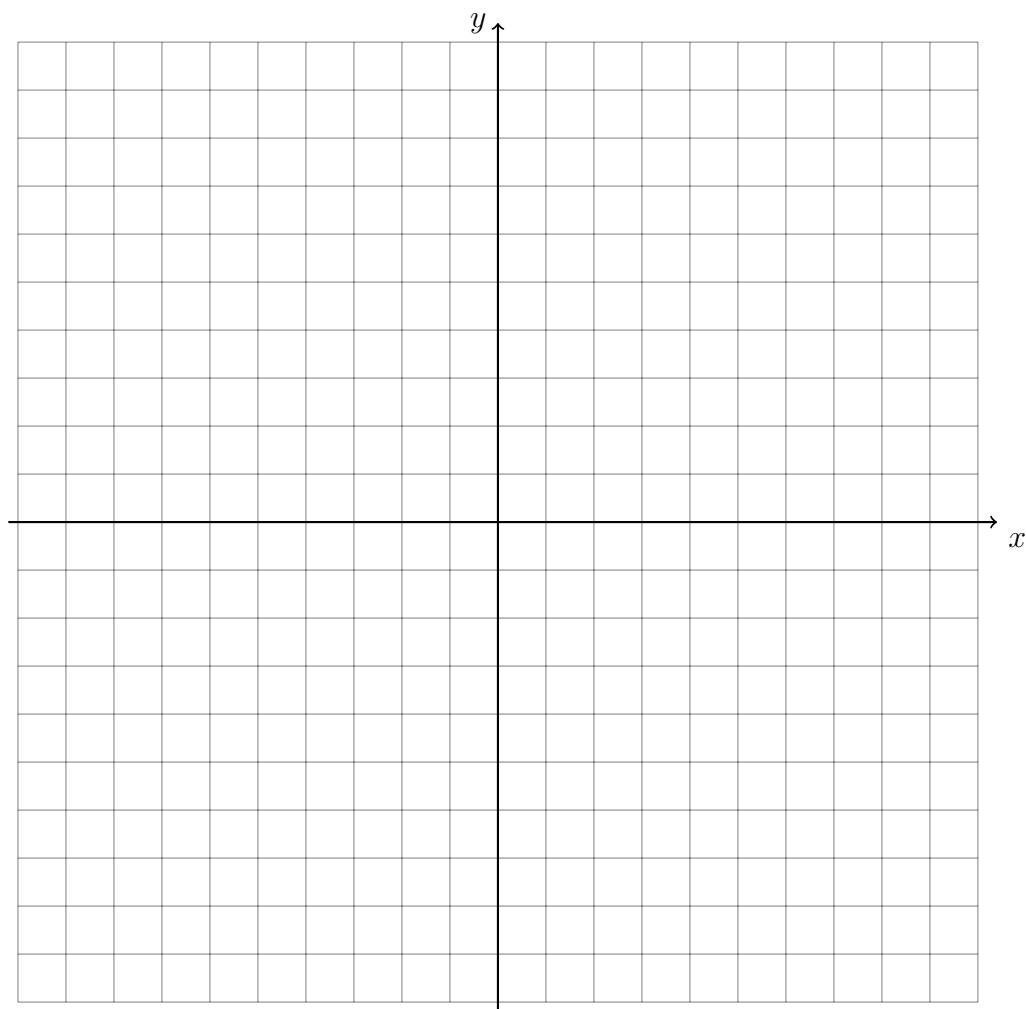
$$x + y = 1$$



2. Solve for y , then graph the two inequalities. Mark the solution set with a capital “S.”

$$y \geq \frac{2}{3}x + 3$$

$$2x + y < -5$$



Determine and state whether the point $(-5, 5)$ is a solution of the system of inequalities. Justify your answer.

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Homework: Graphing systems of equations

1. Graph the two lines after filling in the values in the blanks.

$$y > x - 3$$

(a) y -intercept $b =$ _____

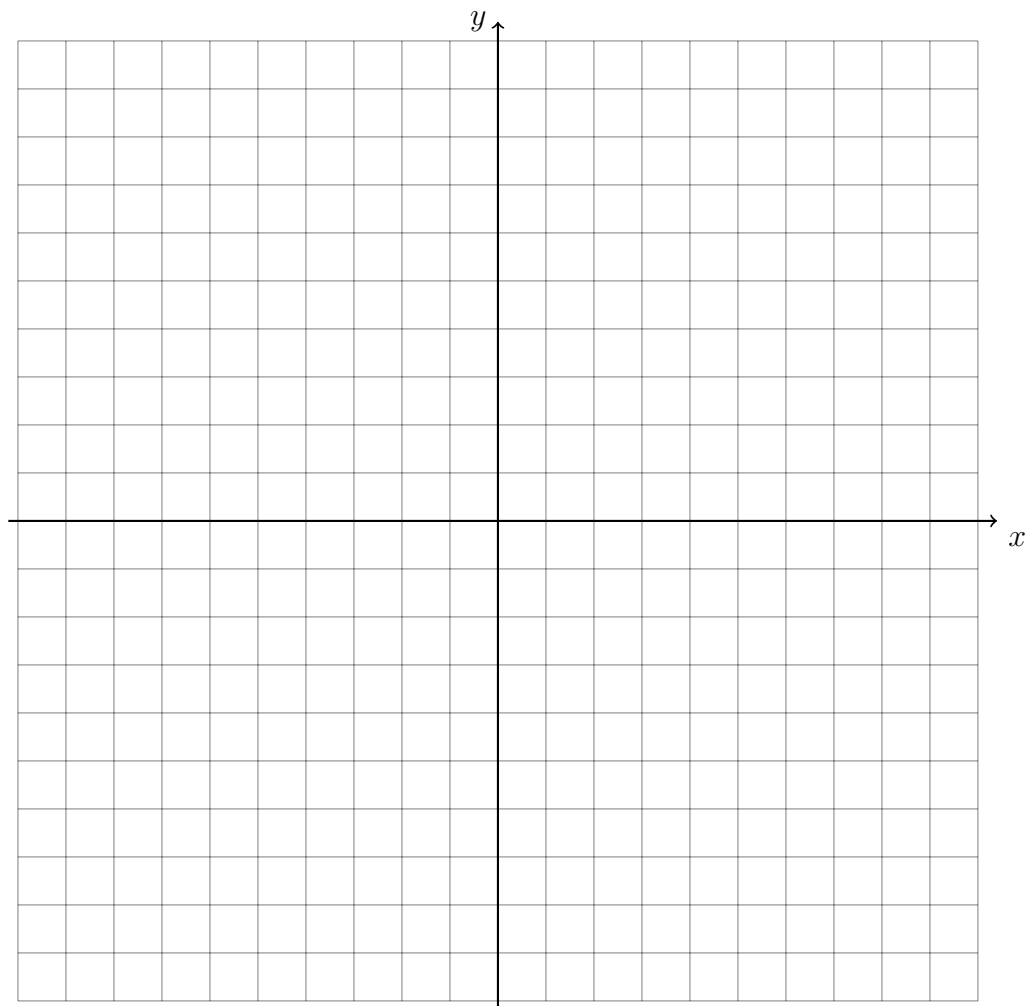
(b) Slope $m =$ _____

$$y \leq -\frac{1}{2}x + 6$$

(a) y -intercept $b =$ _____

(b) Slope $m =$ _____

Label both lines and the solution to the system with a capital "S". (3 points) Use pencil for graph (1 point)



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Classwork: Happy New Year!
Due at the end of the period.

Fill in the values in the blanks and circling the correct types.

1. $y \leq \frac{2}{3}x + 1$

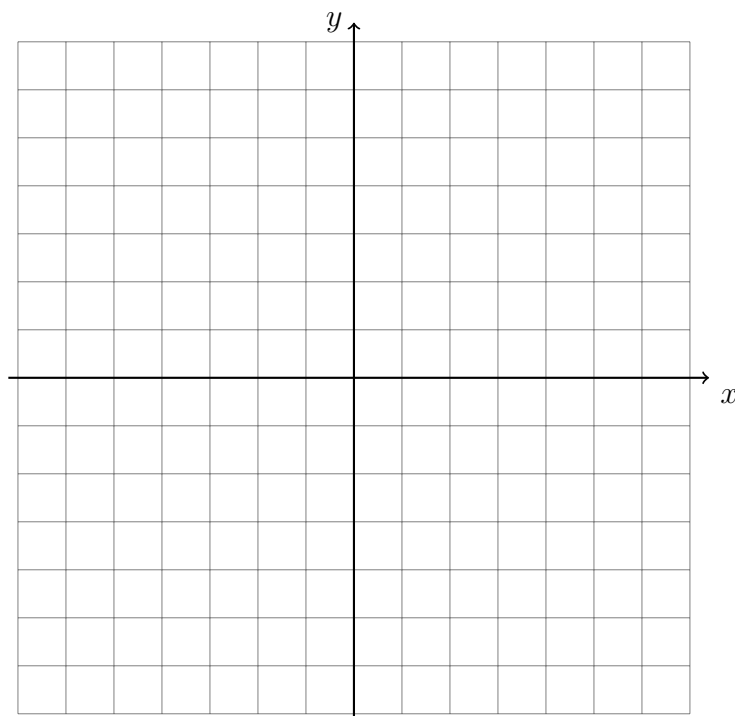
y -intercept $b =$ _____

Line: Solid (=) Dashed (\neq)

Slope $m =$ _____

Shading: Above ($y >$) Below ($y <$)

Graph the inequality (use a pencil and straight edge - 1 point)



2. Solve for y , then complete. $x + 2y > 3$

y -intercept $b =$ _____

Line: Solid (=) Dashed (\neq)

Slope $m =$ _____

Shading: Above ($y >$) Below ($y <$)

3. Graph the two lines after filling in the values in the blanks.

$$y = 2x - 3$$

(a) y -intercept $b =$ _____

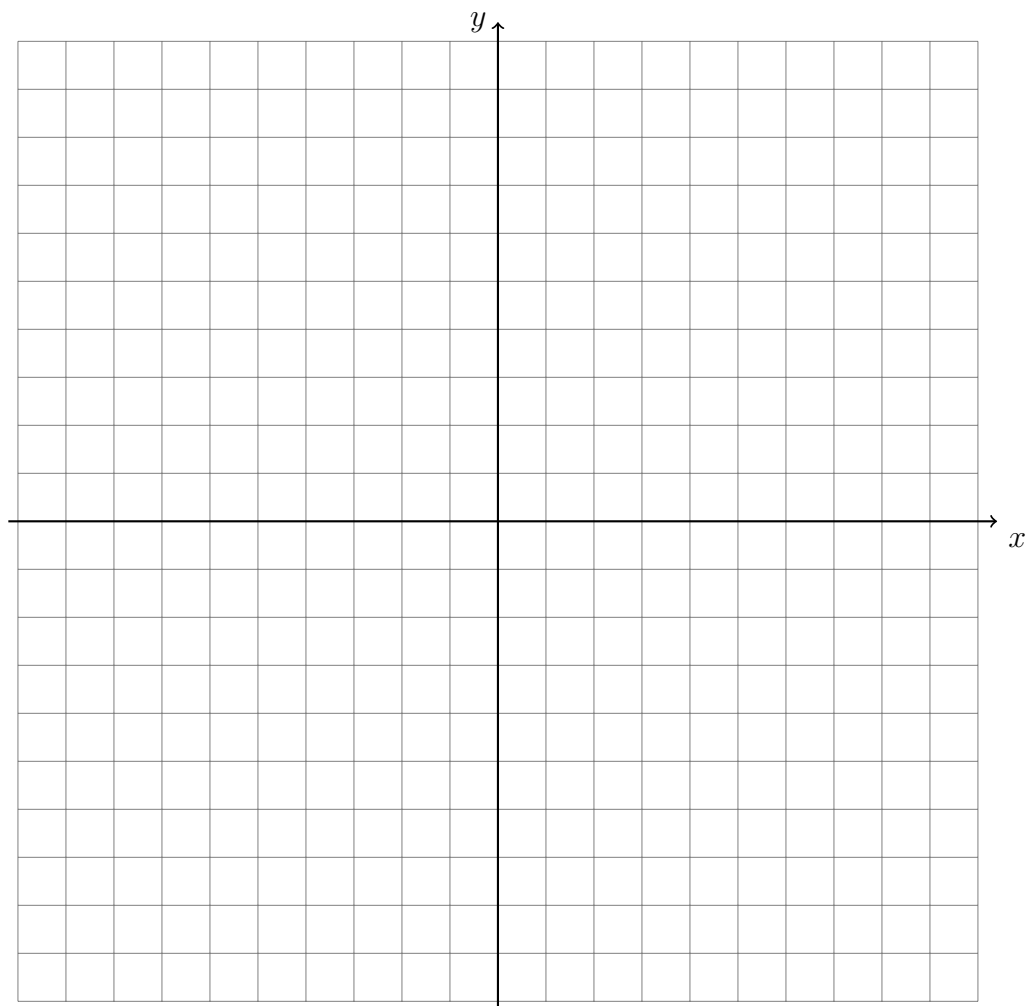
(b) Slope $m =$ _____

$$y = -\frac{1}{3}x + 4$$

(a) y -intercept $b =$ _____

(b) Slope $m =$ _____

Label both lines and the solution to the system, the intersection, as a coordinate pair.
(3 points) Use pencil for graph (1 point)



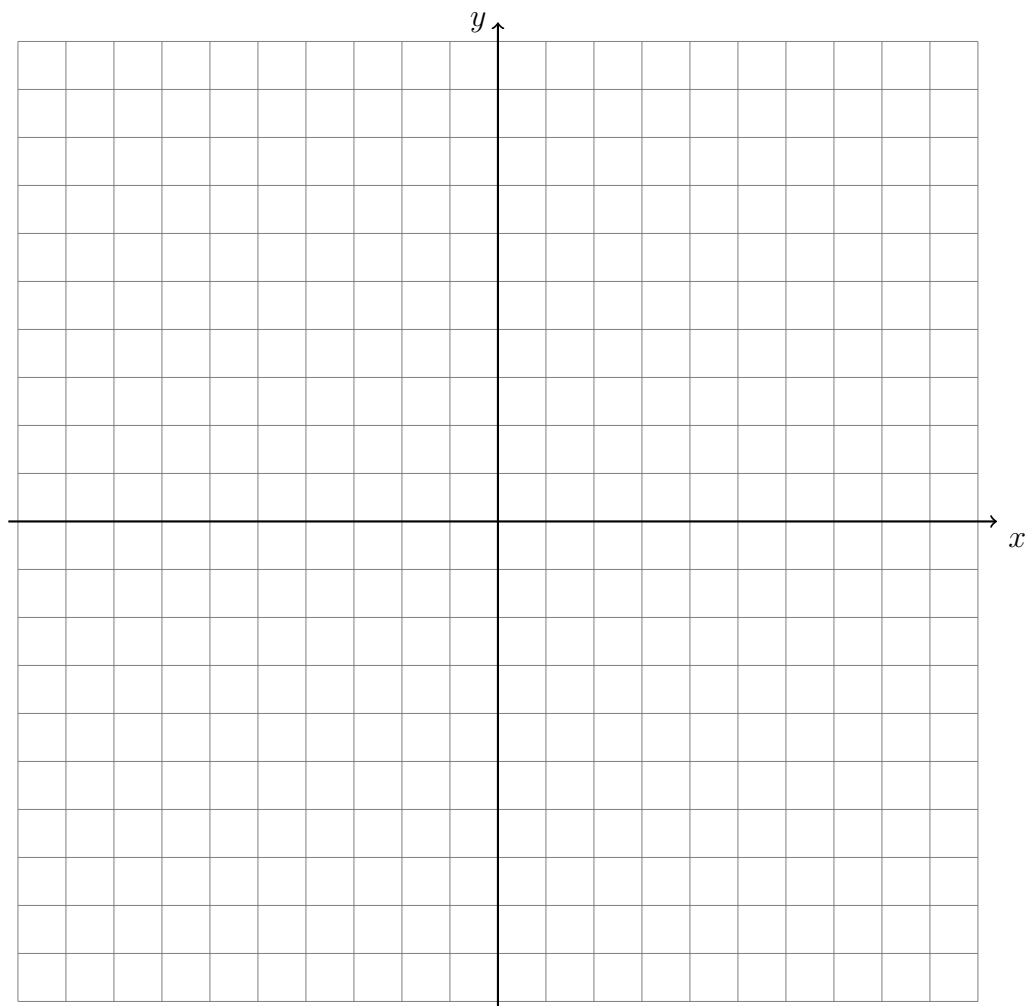
Name:

Graphing quadratic functions

4. Given the quadratic function $f(x) = x^2 - 3$, find the row differences.

x	$f(x)$
-3	6
-2	1
-1	-2
0	-3
1	-2
2	1
3	6

Graph the function as a line over the domain $-3 \leq x \leq 3$.



5. Graph the two lines after filling in the values in the blanks.

$$y = x - 3$$

(a) y -intercept $b =$ _____

(b) Slope $m =$ _____

$$x + y = 1$$

(a) y -intercept $b =$ _____

(b) Slope $m =$ _____

Label both lines and the solution to the system, the intersection, as a coordinate pair.
(3 points) Use pencil for graph (1 point)

