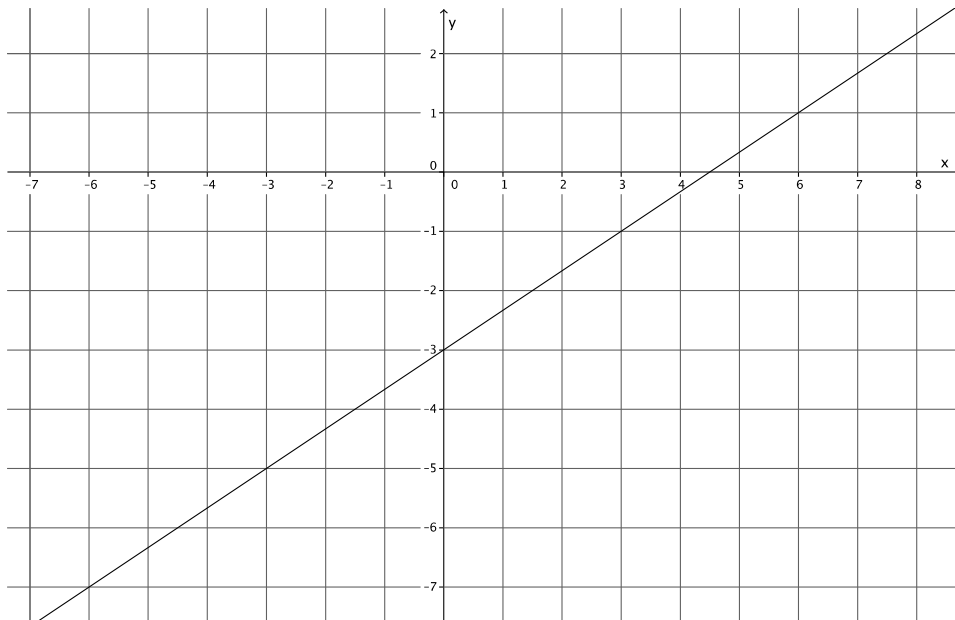


Lesson 20: Every Line is a Graph of a Linear Equation

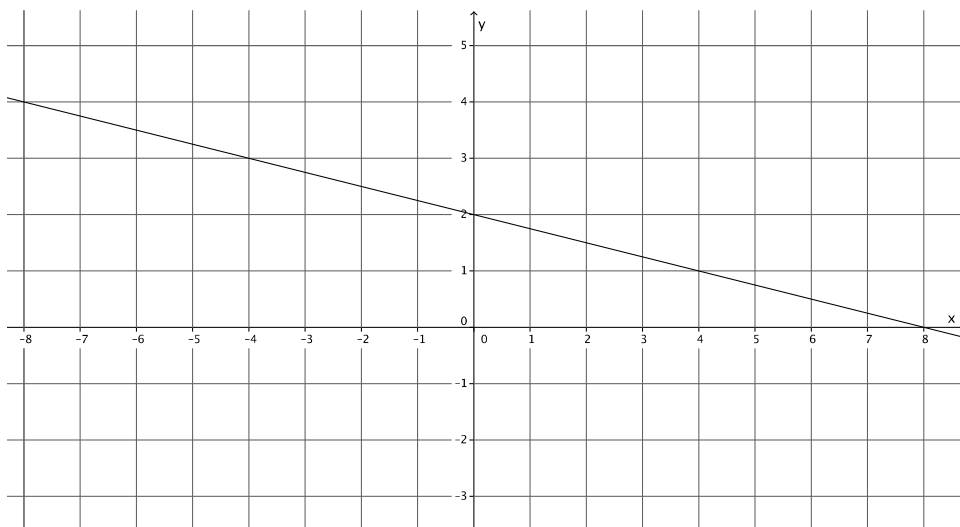
Classwork

Opening Exercise

Graph 1



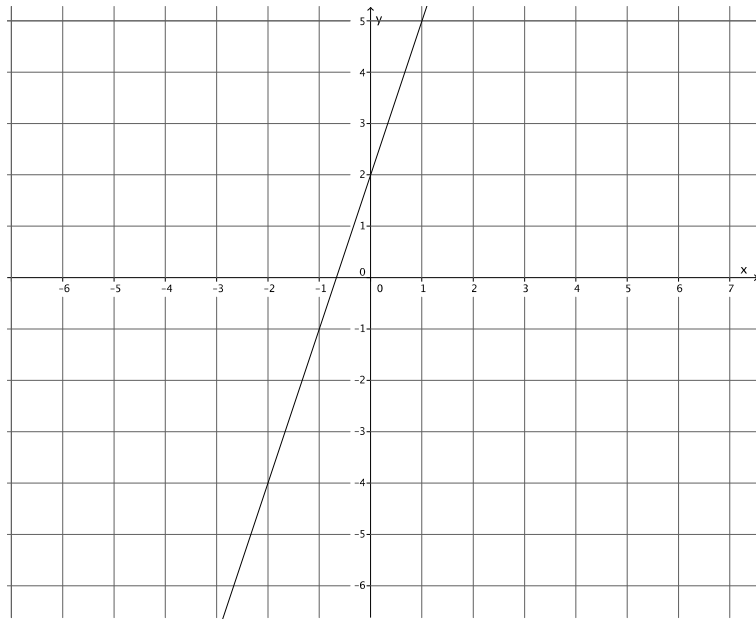
Graph 2



Exercises

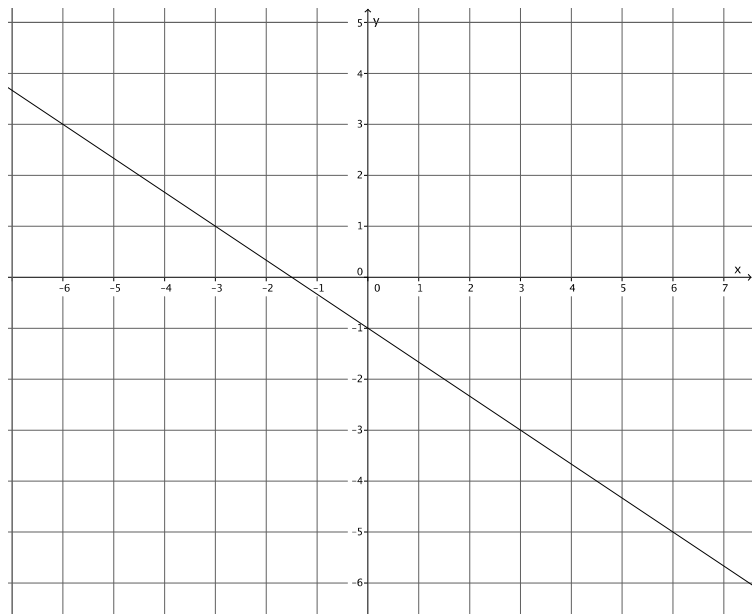
- Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



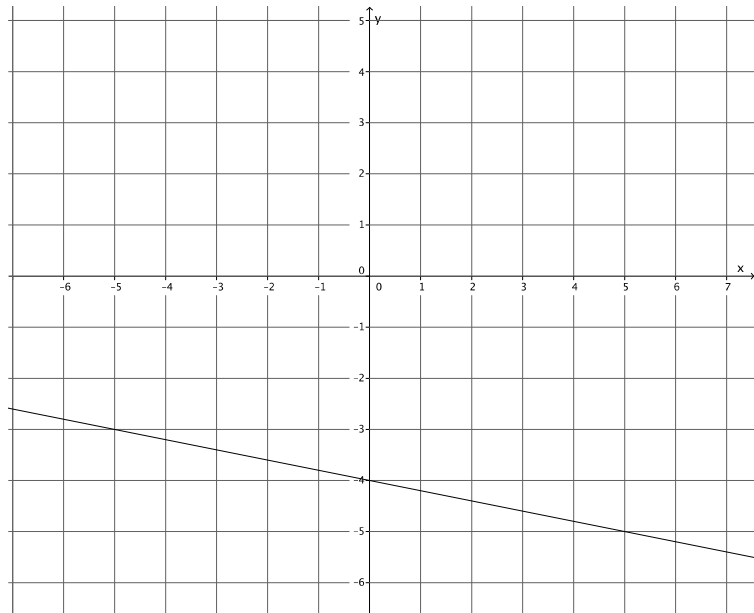
- Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



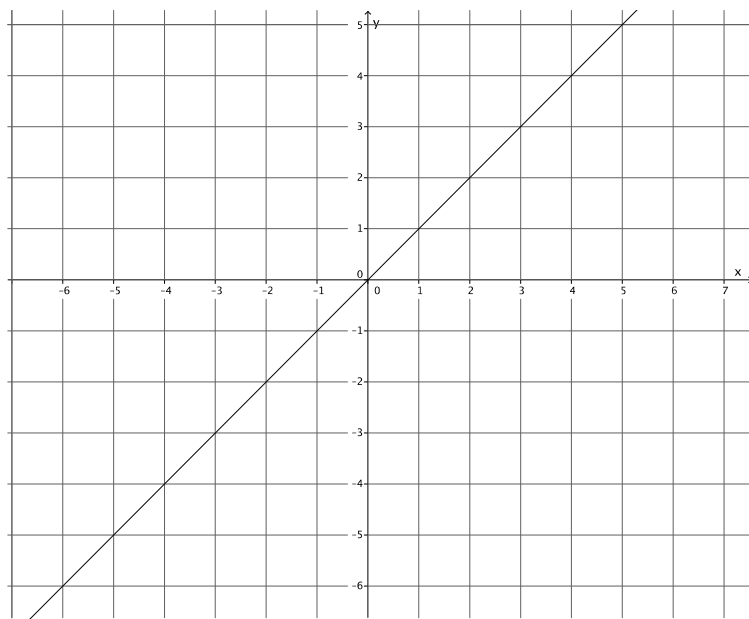
3. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.

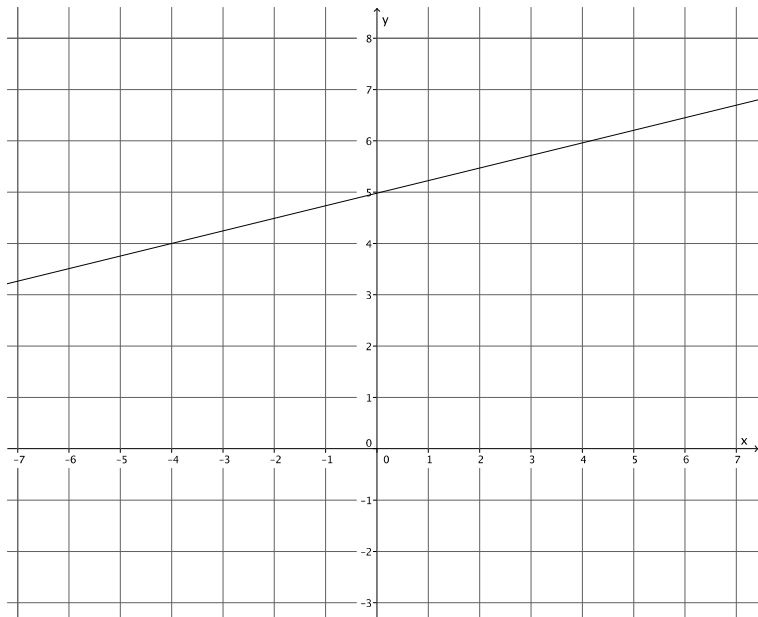


4. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.

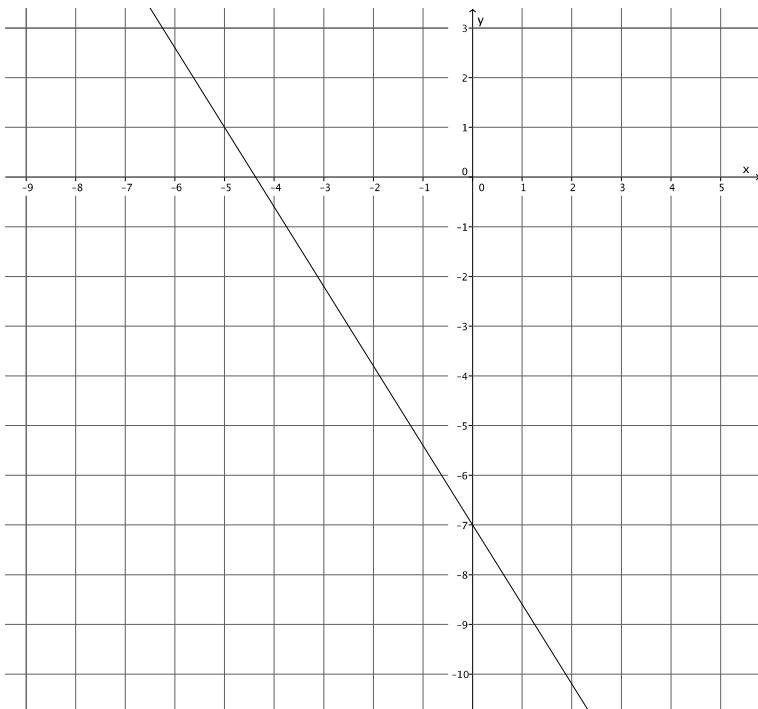


5. Write the equation that represents the line shown.



Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.

6. Write the equation that represents the line shown.

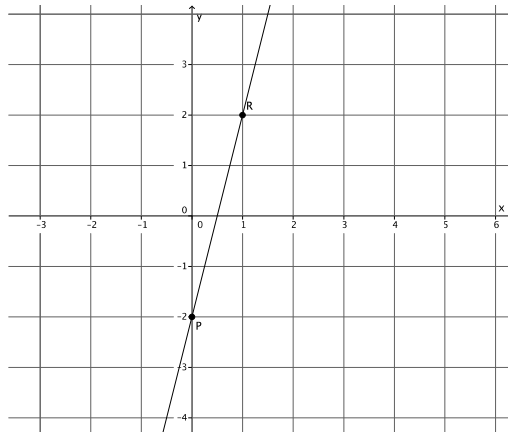


Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.

Lesson Summary

Write the equation of a line by determining the y -intercept, $(0, b)$ and the slope, m , and replacing the numbers b and m into the equation $y = mx + b$.

Example:



The y -intercept of this graph is $(0, -2)$.

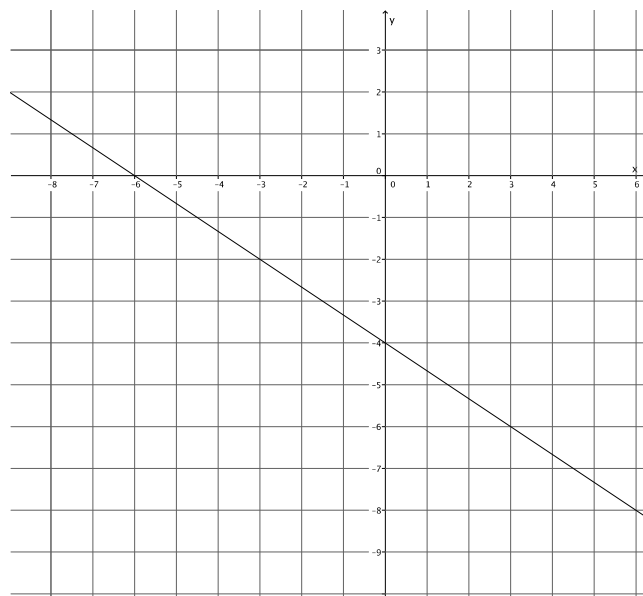
The slope of this graph is $m = \frac{4}{1} = 4$.

The equation that represents the graph of this line is $y = 4x - 2$.

Problem Set

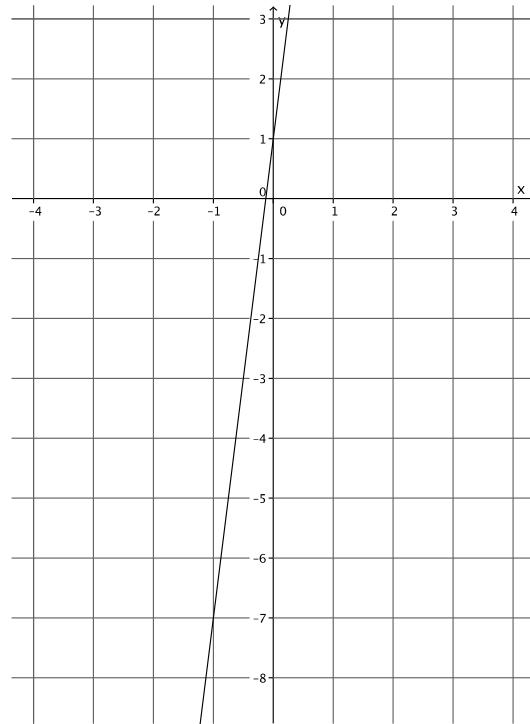
- Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



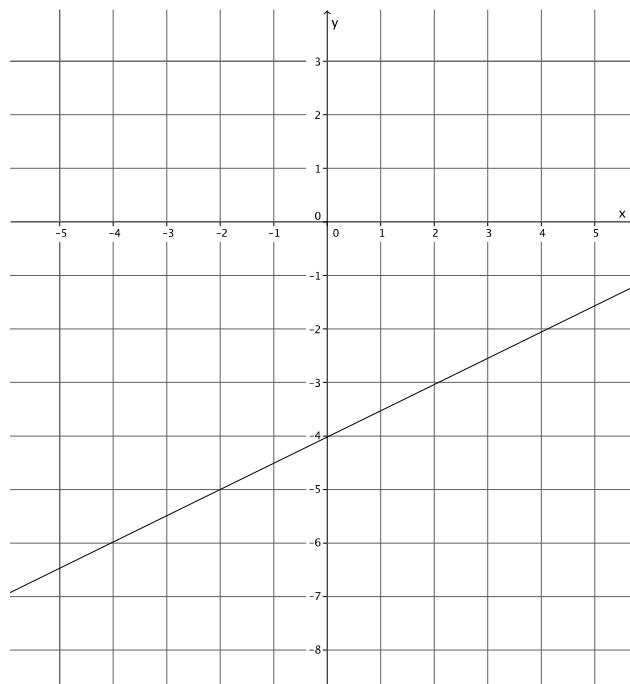
2. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



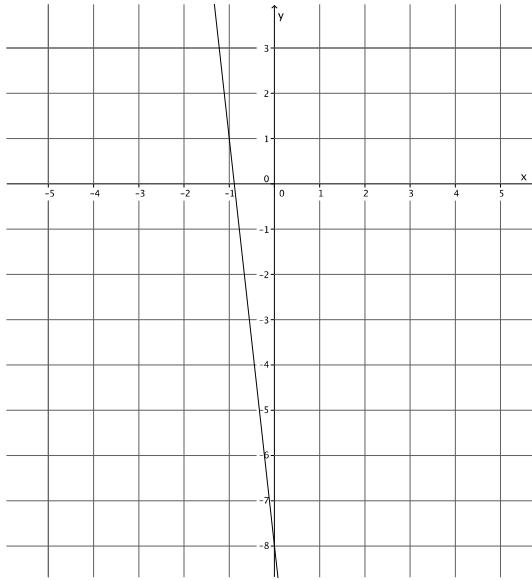
3. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



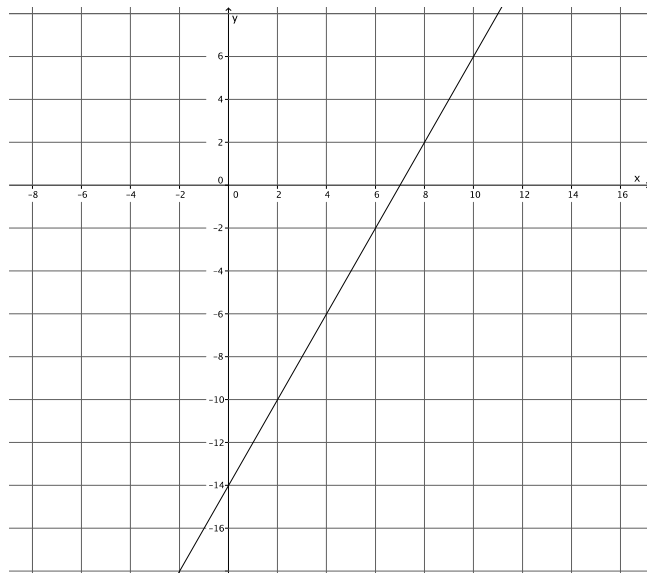
4. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



5. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.



6. Write the equation that represents the line shown.

Use the properties of equality to change the equation from slope intercept form, $y = mx + b$, to standard form, $ax + by = c$, where a , b , and c are integers and a is not negative.

