

# GRAPHS OF STRAIGHT LINES

*How to graph equations and find equations from graphs.*

# Tables of Values

- ▣ A table of values is used to generate points.
- ▣ These points can be plotted on the coordinate plane.
- ▣ A straight line drawn through these points creates the graph of the equation.

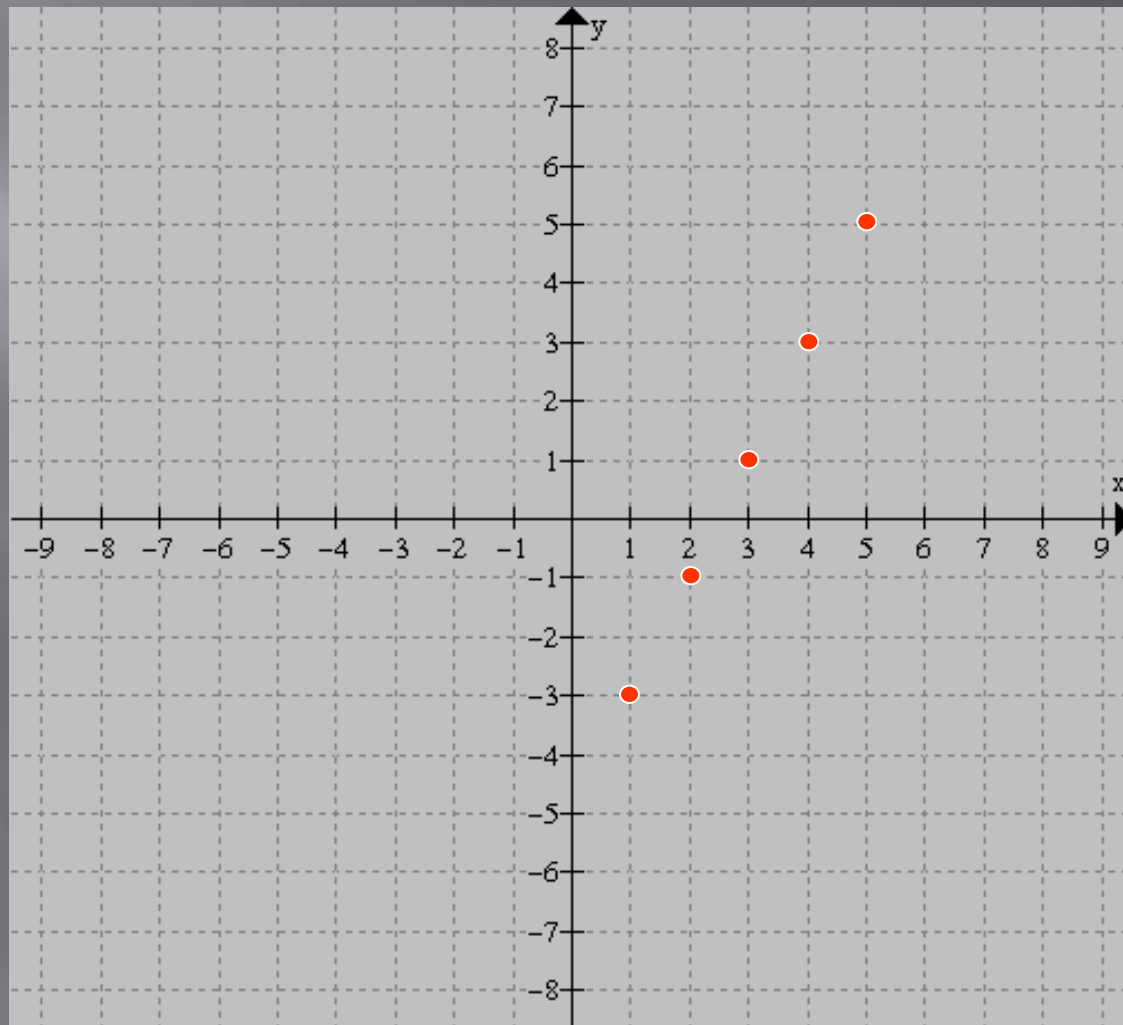
# Example

Graph  $y = 2x - 5$

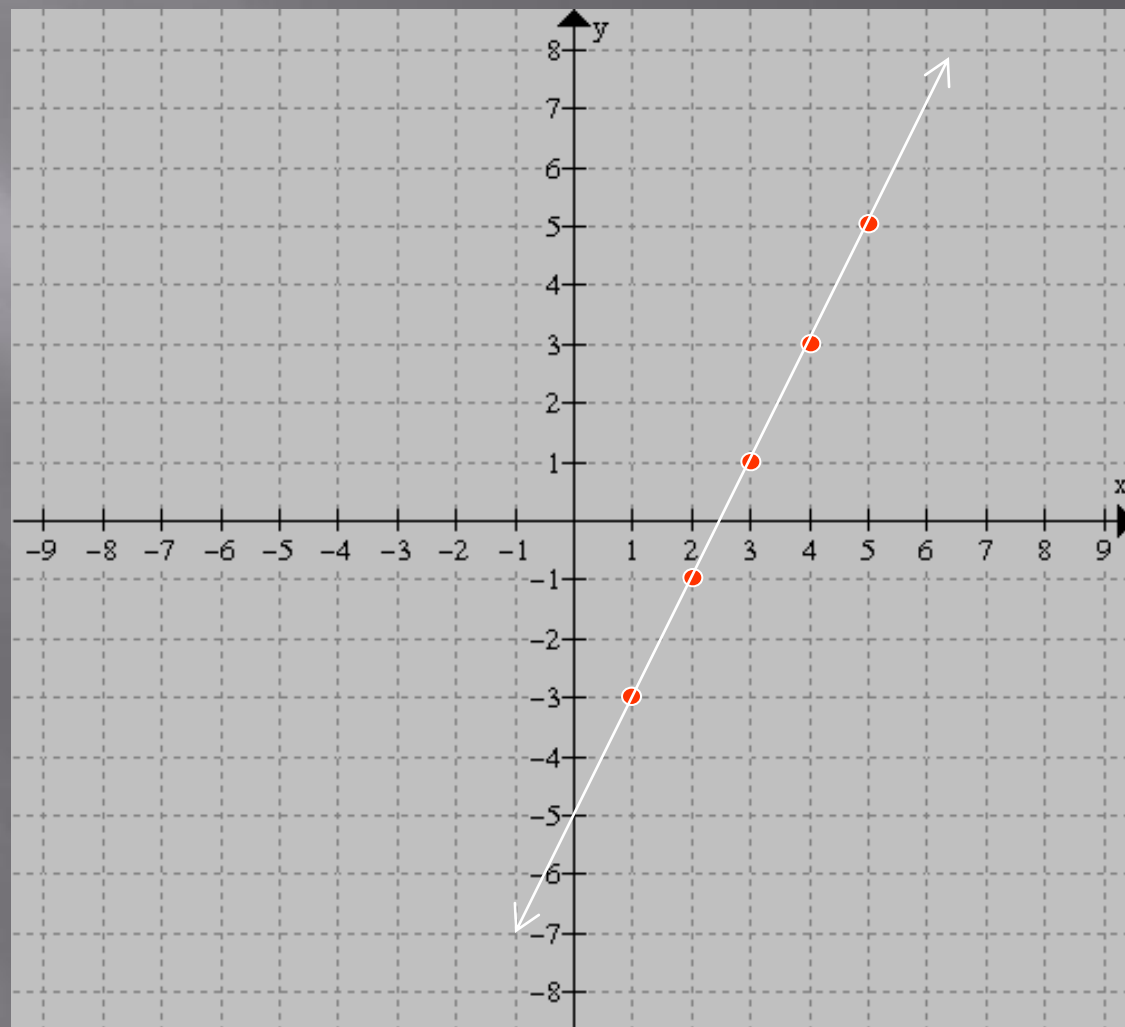
$x$	1	2	3	4	5
$y$	-3	-1	1	3	5

Plot these points on the coordinate plane.

x	1	2	3	4	5
y	-3	-1	1	3	5



# Draw a straight line through the points



# Exercises

Graph the following straight lines:

1.  $y = 3x - 4$

2.  $y = 2x + 1$

3.  $y = x - 5$

4.  $y = -3x + 2$

5.  $y = \frac{x}{2} + 3$

Look for a  
relationship  
between the  
graphs and their  
algebraic  
expressions!!!

# The Gradient-Intercept Form of a Straight Line

When a linear function is written in the form

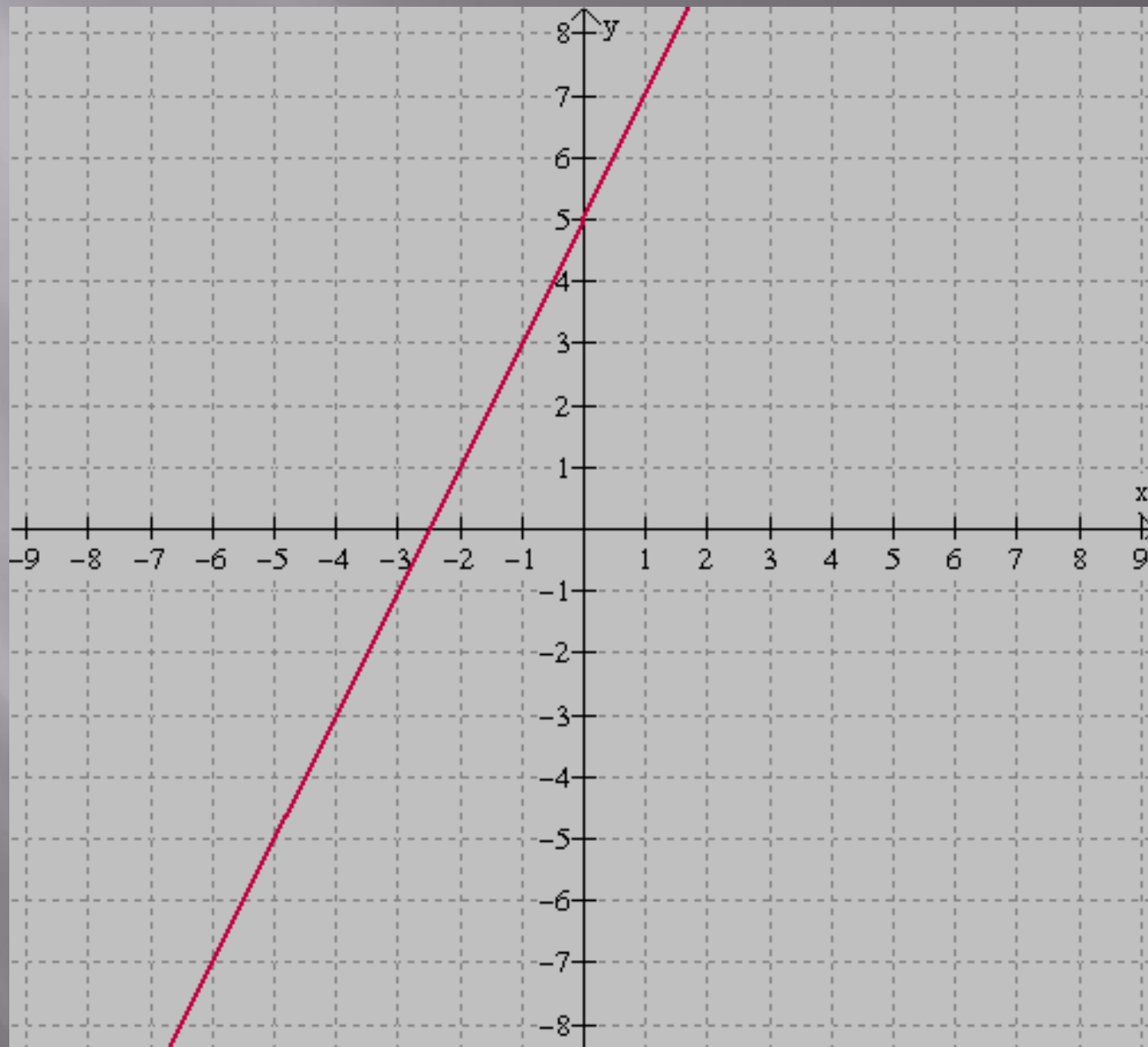
$$y = mx + b$$

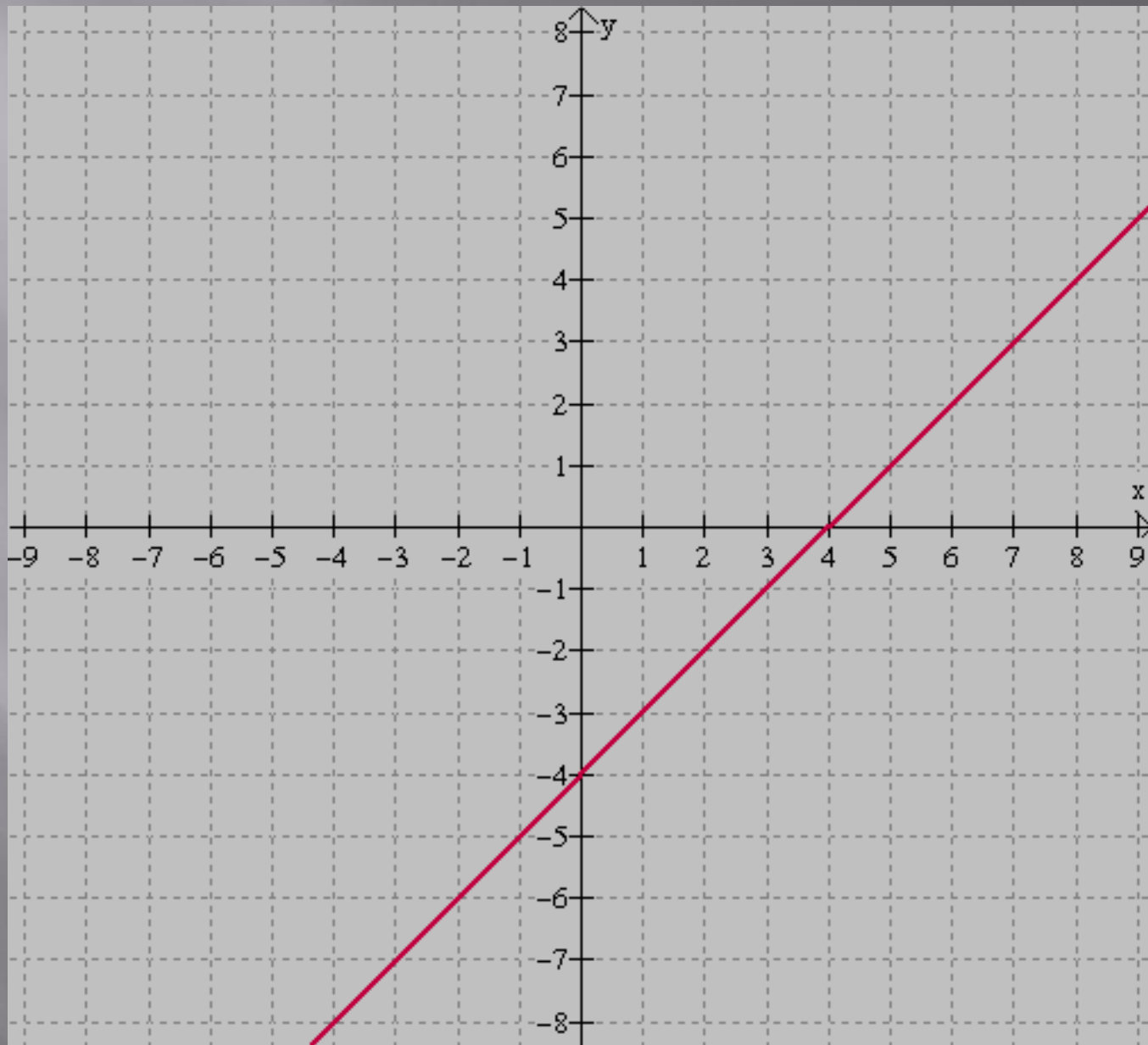
the  $m$  is its gradient and the  $b$  is its y-intercept.

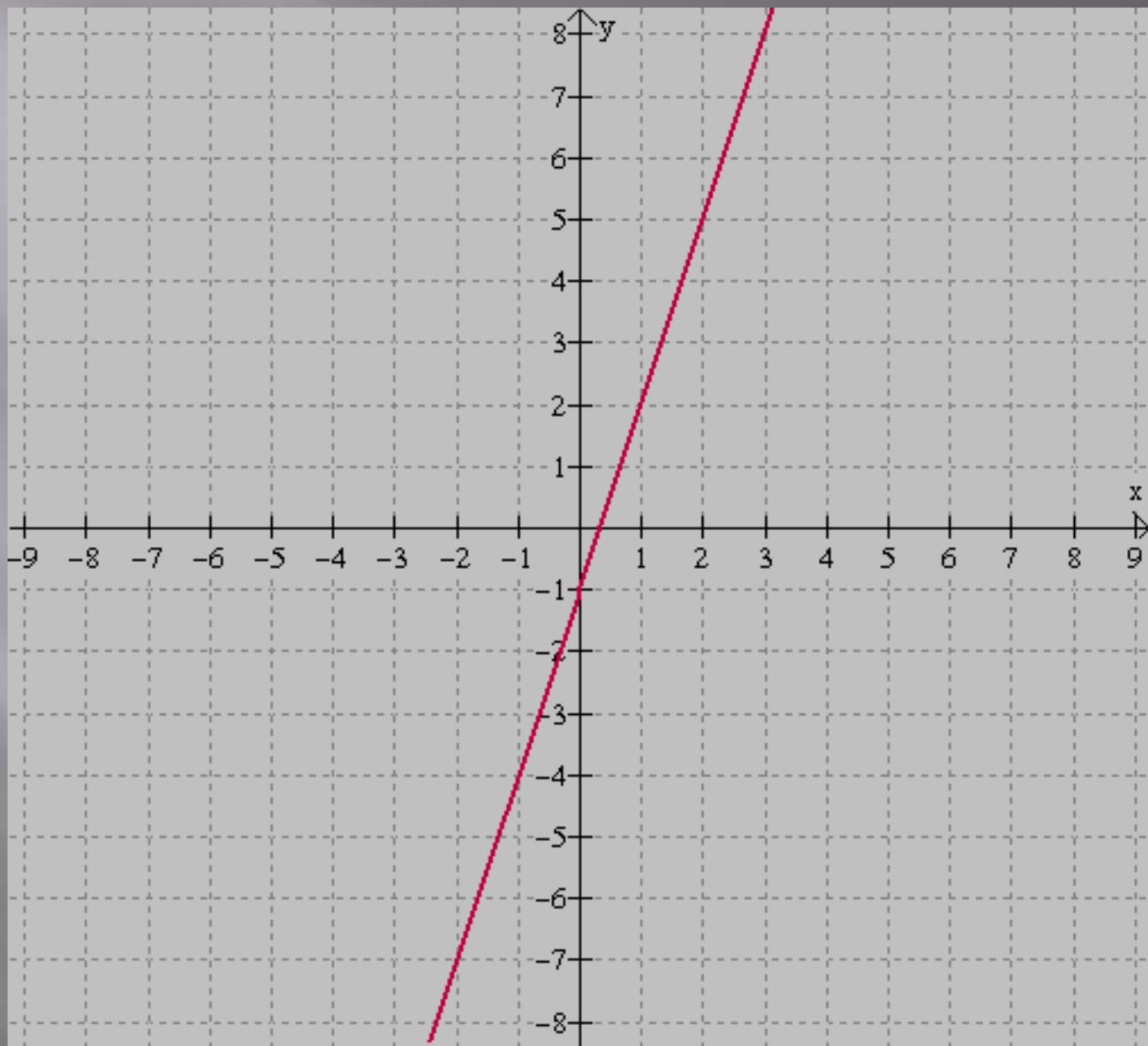
# What's the Equation?

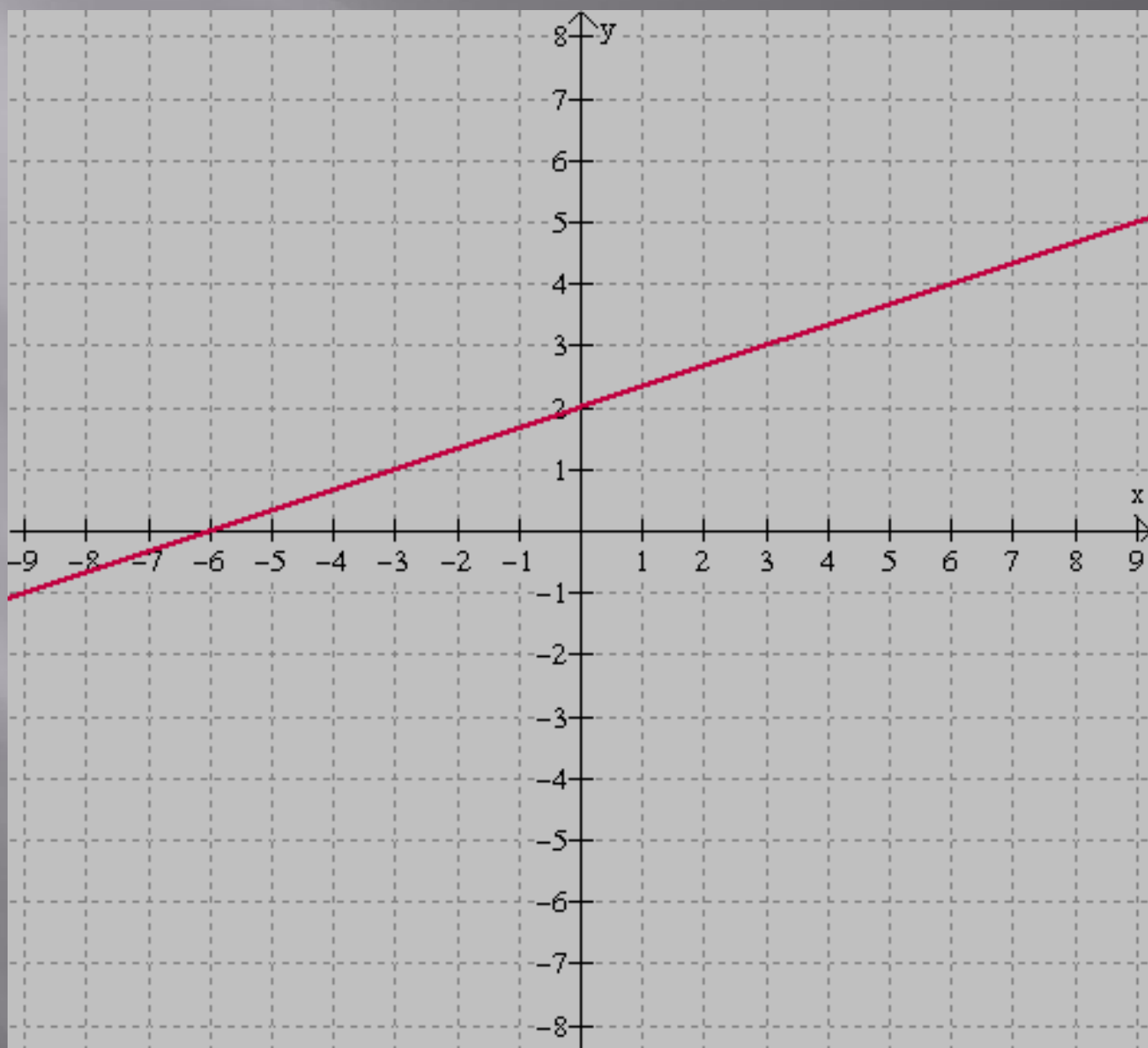
For the following graphs, determine their equation.

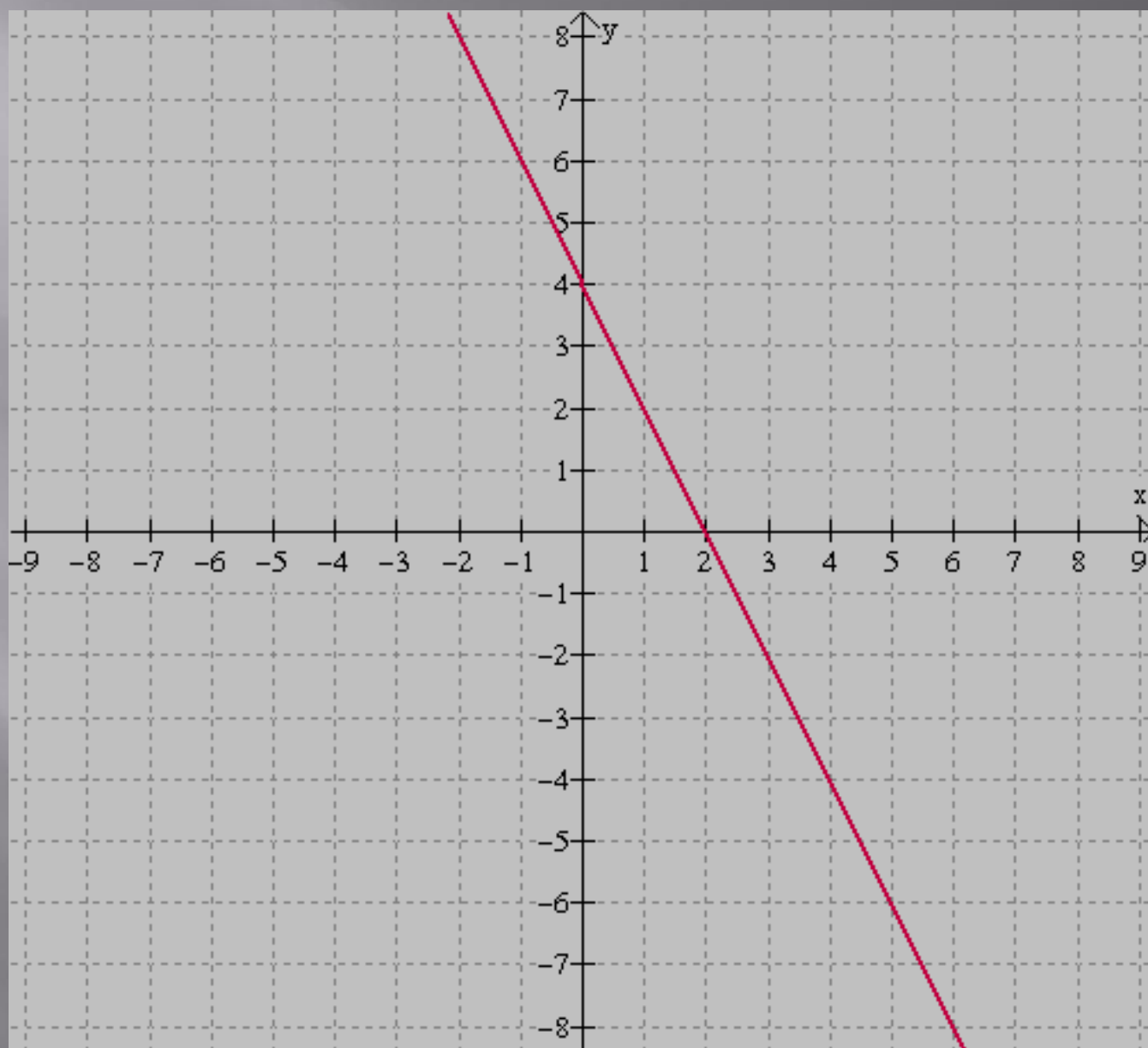












THANK YOU