

## Slope Intercept Form Day 2 Notes

### Slope Formula

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

- $\frac{\text{change in } y}{\text{change in } x}$

### Slope-Intercept Form

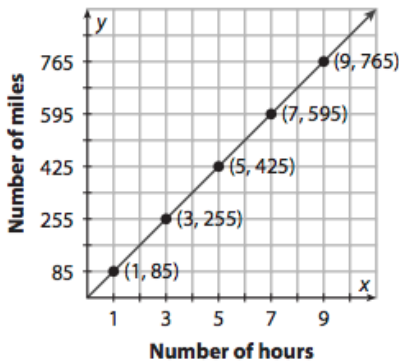
$$y = mx + b$$

-Easiest way to graph:

- Plot the y-intercept (b)
- Write the slope (m) as a fraction. Use "change in y/change in x" to get more points on your line

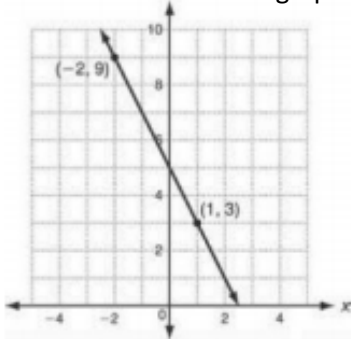
**Objective: Find the slope from a table, from a graph, and from two points**

Hot Air Balloon Travel



1. Find and Interpret the Slope.

2. Count units on the graph



3. Find the change in y and change in x from a table

x	-2	-1	0	2
y	9	7	5	1

4. Use the slope formula: (-2, 9) and (1, 3)

**Objective: Graph from slope intercept form and Write the equation for the graph**

**Graph each equation. Use each coordinate plane for two graphs.**

5)  $y = \frac{1}{4}x$

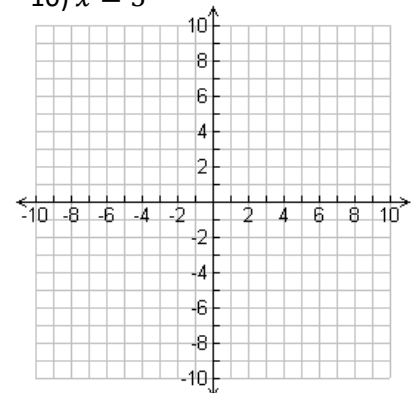
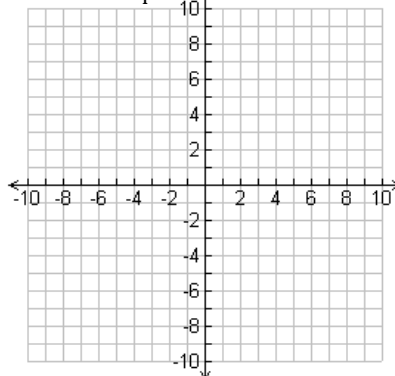
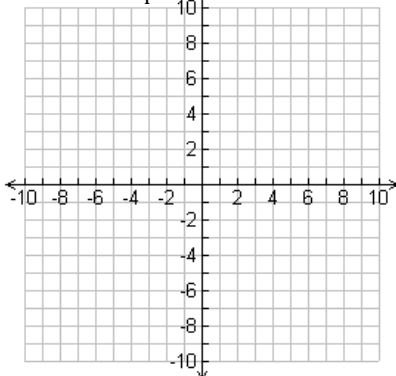
7)  $y = 2x + 6$

9)  $y = -\frac{5}{2}x + 2$

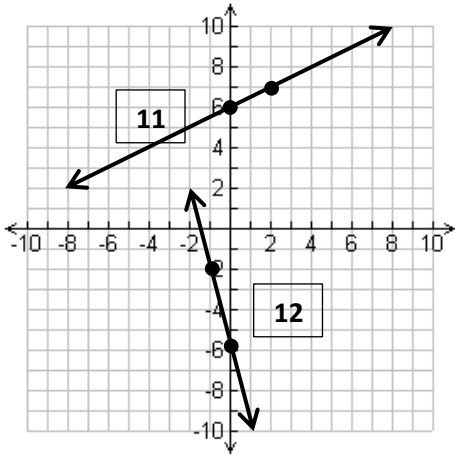
6)  $y = -\frac{1}{4}x - 2$

8)  $y = -\frac{3}{4}x + 6$

10)  $x = 5$

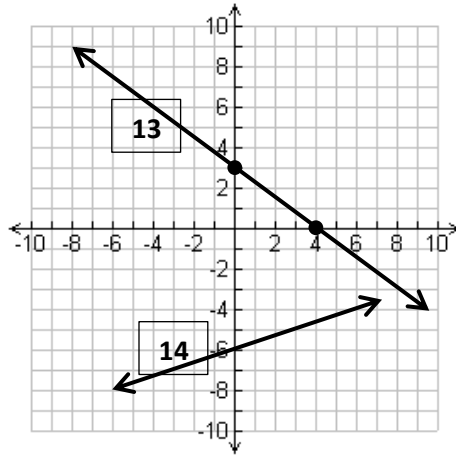


Write the equation of the line in slope-intercept form.



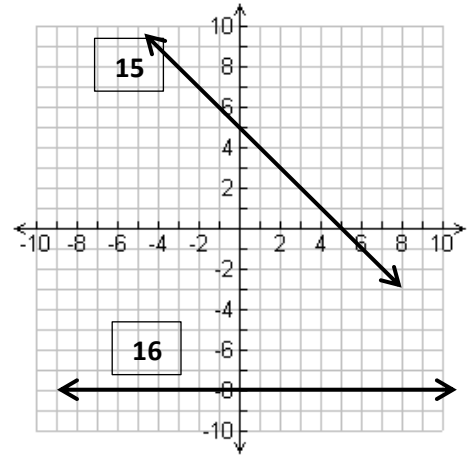
11)

12)



13)

14)



15)

16)

**Objective: Find the equation for the line from two points given**

17) Write an equation of a line in slope-intercept form with a slope of  $\frac{1}{2}$  that passes through (2, -4)

18) Write an equation of a line in slope-intercept form that passes through the points (1, 5) and (2, 3)

19) Write an equation of a line in slope-intercept form that passes through the points (9, 1) and (7, 3)

20) Write an equation of a line in slope-intercept form that passes through the points (6, -3) and (-4, 2)

21) Write an equation of a line in slope-intercept form that passes through the points (9, 5) and (11, 5)

22) Write an equation of a line in slope-intercept form that passes through the points (5, 9) and (5, 11)