

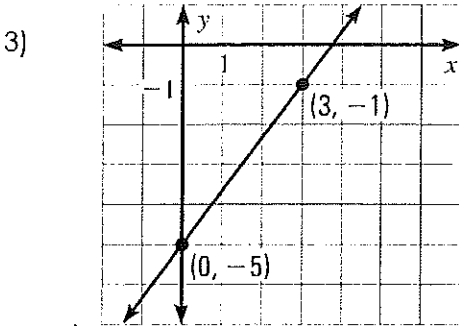
Write the equation of a line **given the slope and y-intercept.**

Write the equation of the line with the given slope and y-intercept.

1) Slope is -2 and a y-intercept of 5

2) Slope is $\frac{3}{4}$ and y-intercept is -3

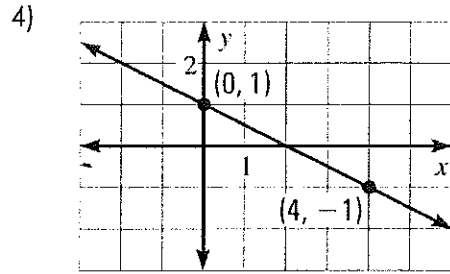
Write the equation of a line in slope intercept form **given a graph.**



Slope: _____

Y-Intercept: _____

Equation: _____

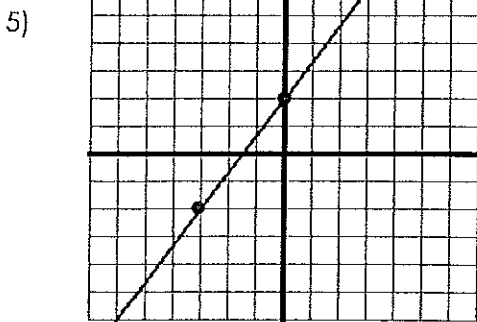


Slope: _____

Y-Intercept: _____

Equation: _____

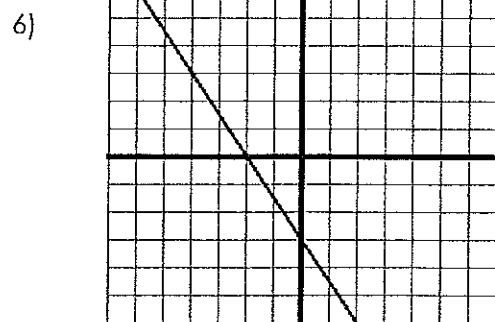
Examples: Write the linear equation for the graph shown.



Slope: _____

Y-Intercept: _____

Equation: _____



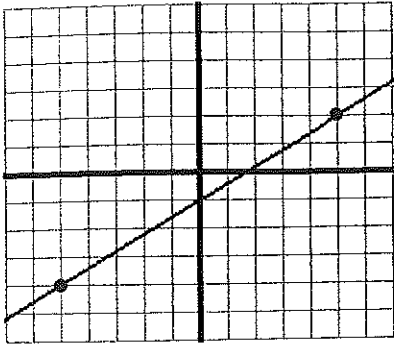
Slope: _____

Y-Intercept: _____

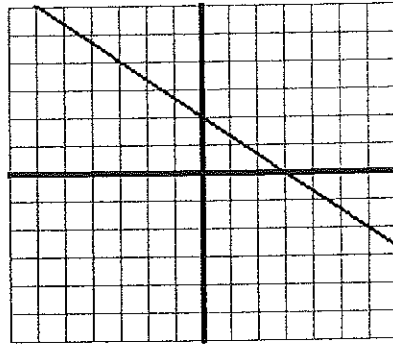
Equation: _____

Write an equation based on the graph.

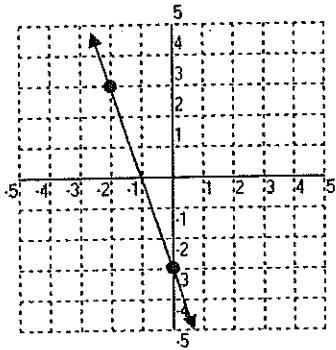
7.



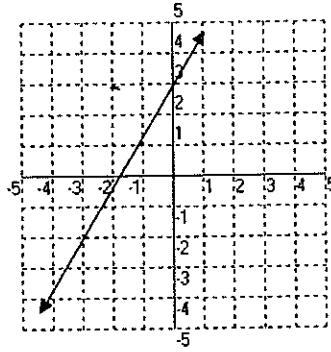
8.



9.



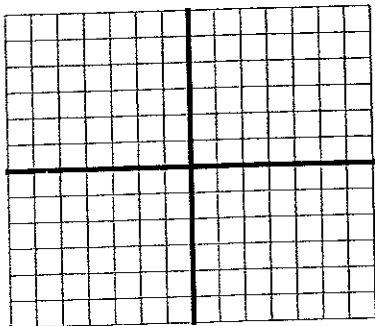
10.



Graph the equations in Slope-Intercept form.

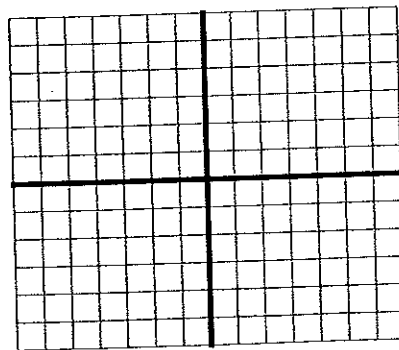
11.

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



12.

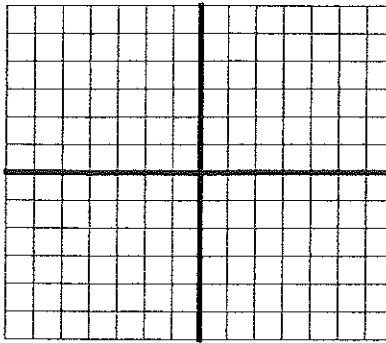
$$10 - 5y = 3x$$



13.

$$y = 2x + 1$$

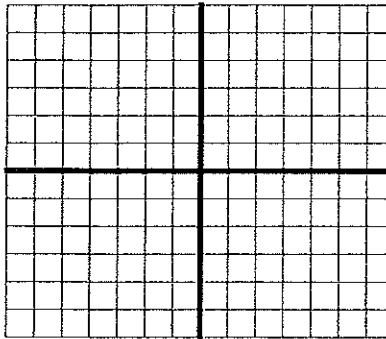
Slope: Y-Int:



14.

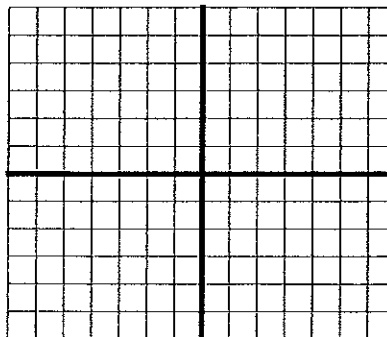
$$y = -\frac{2}{3}x - 2$$

Slope: Y-Int:



15.

$$4y - 8 = 2x$$



$Y = mx + b$ Word Problems

1. Suppose that the water level of a river is 34 feet and that it is receding at a rate of 0.5 foot per day. Write an equation for the water level, L , after d days. In how many days will the water level be 26 feet?

2. Seth's father is thinking of buying his son a six-month movie pass for \$40. With the pass, matinees cost \$1.00. If matinees are normally \$3.50 each, how many times must Seth attend in order for it to benefit his father to buy the pass?

3. For babysitting, Nicole charges a flat fee of \$3, plus \$5 per hour. Write an equation for the cost, C , after h hours of babysitting. What do you think the slope and the y -intercept represent? How much money will she make if she baby-sits 5 hours?

4. A plumber charges \$25 for a service call plus \$50 per hour of service. Write an equation in slope-intercept form for the cost, C , after h hours of service. What will be the total cost for 8 hours of work? 10 hours of work?

5. Rufus collected 100 pounds of aluminum cans to recycle. He plans to collect an additional 25 pounds each week. Write and graph the equation for the total pounds, P , of aluminum cans after w weeks. What does the slope and y -intercept represent? How long will it take Rufus to collect 400 pounds of cans?

6. A canoe rental service charges a \$20 transportation fee and \$30 dollars an hour to rent a canoe. Write and graph an equation representing the cost, y , of renting a canoe for x hours. What is the cost of renting the canoe for 6 hours?