Date: _____

Practise: Investigate Slope and y-Intercept

Sec 3

1. Graph the following equations using a graphing calculator with the standard window settings. Then, using the graph, calculate the slope and y-intercept of each line.

a) $y = 2x$

slope: _____

y-intercept: _____

b) $y = 4x - 5$

slope: _____

y-intercept: _____

c) $y = -x + 6$

slope: _____

y-intercept: _____

d) $y = -\frac{1}{2}x + \frac{5}{2}$

slope: _____

y-intercept: _____

Hint: Make sure equation is stated in form $y = mx + b$

2. Write the equation of each line using the information given.

a) slope $= \frac{7}{2}$ and y-intercept $= 9$ equation: _____

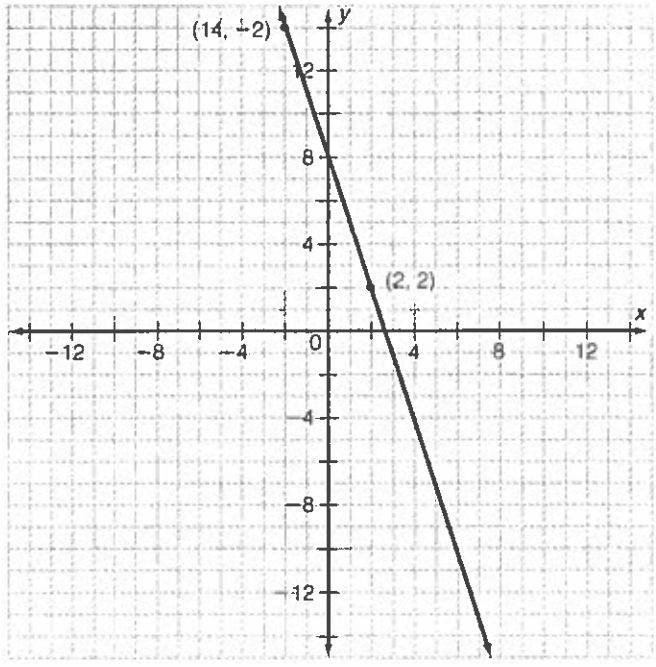
b) $m = -3$ and $b = 3$ equation: _____

c) $m = 0$ and $b = -3$ equation: _____

d) $m = 7$ and $b = 0$ equation: _____

3. Write the equation for each graph below. First determine the slope and y-intercept.

a)



slope: _____

y-intercept: _____

equation: _____

Date: _____

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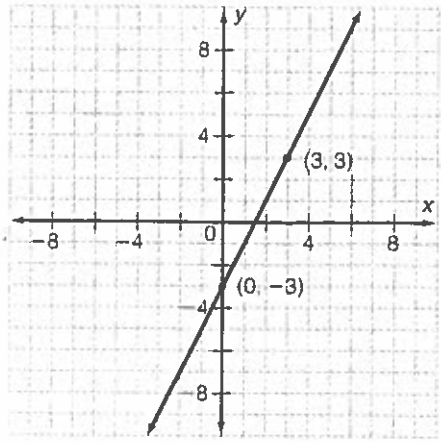
3.2

b)

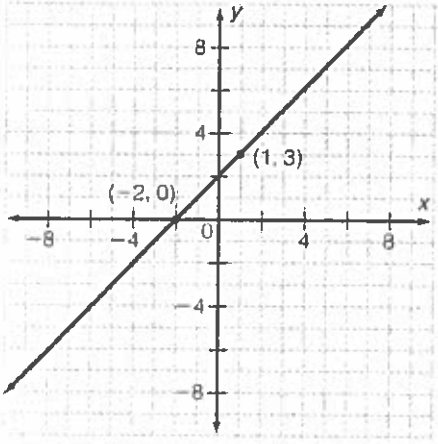


slope: _____

y-intercept: _____

equation: _____

c)



slope: _____

y-intercept: _____

equation: _____

4. The cost to rent a hall for a hockey banquet is modelled by the equation $C = 35n + 3000$, where C represents the total cost in dollars and n represents the number of people attending the banquet.

a) Use a graphing calculator to graph this equation with the standard window settings.

b) Since no line appears on your display screen, describe what you need to do to make the graph appear.

_____

c) What does the number 35 in the equation represent?

_____

d) What does the number 3000 in the equation represent?

_____

e) How much will the banquet cost if the organizers expect 200 people?

_____