Chapter 9-1 to 9-3 Review Part 2

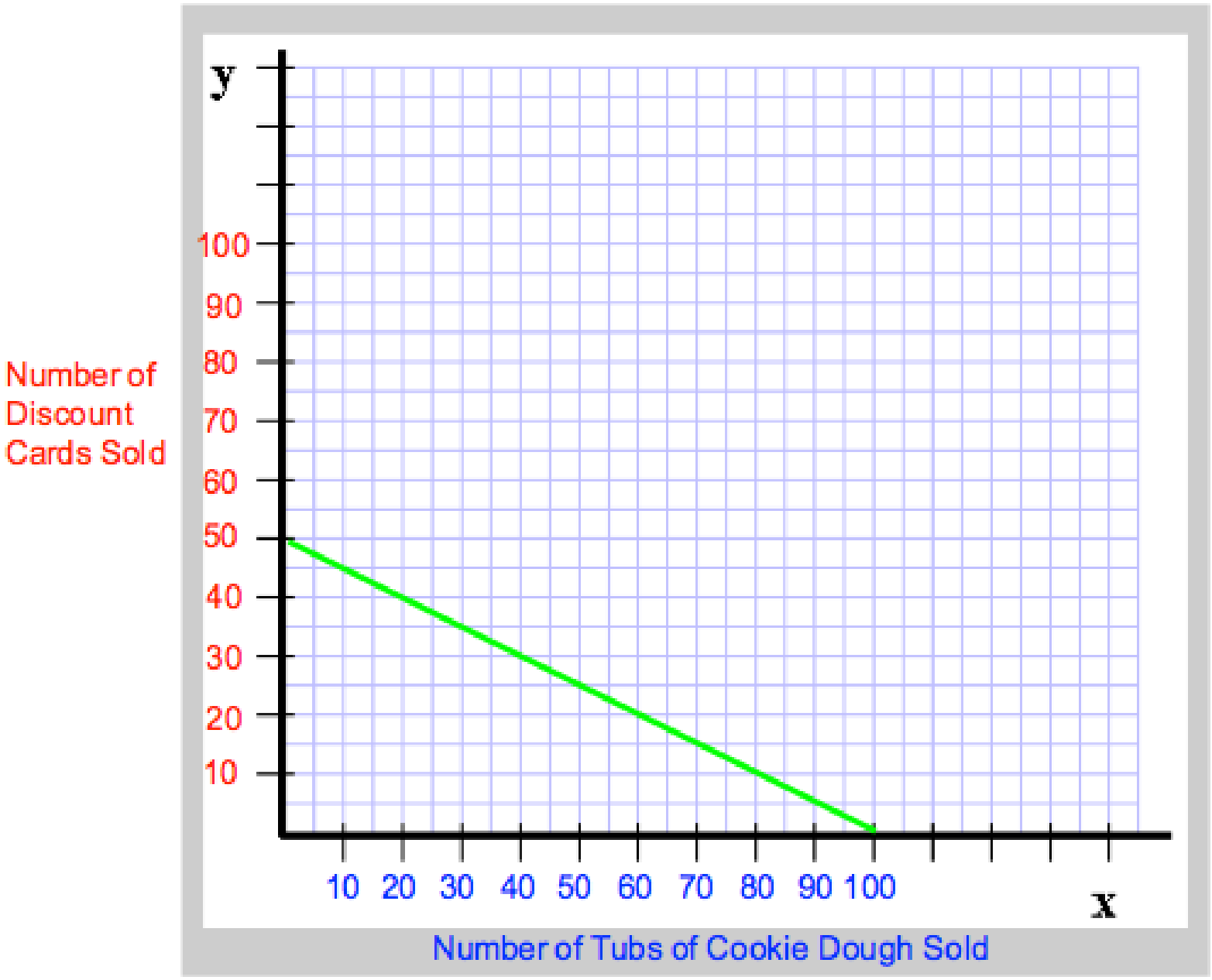
Write an equation/function to model this situation. Define your variables, find the intercepts, graph using the intercepts, and determine the possible solutions.

9) For a school fundraiser, you are selling tubs of cookie dough and discount cards. You earn $5 for each tub of cookie dough you sell and $10 for each discount card you sell. You want to raise $500.

x-variable = number of tubs of cookie dough sold
y-variable = number of discount cards sold

Equation: $5x + 10y = 500$

x	y
100	0
0	50

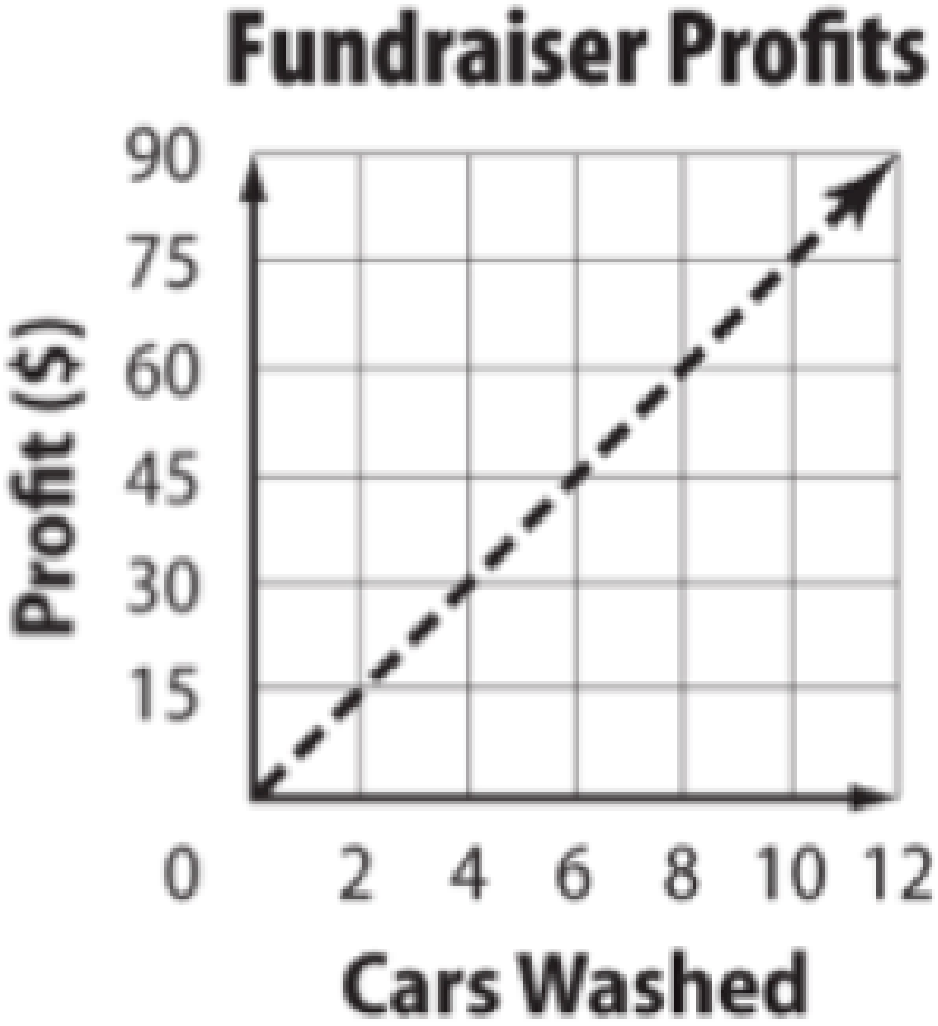

y
100
90
80
70
60
50
40
30
20
10
Number of Discount Cards Sold
10 20 30 40 50 60 70 80 90 100
x
Number of Tubs of Cookie Dough Sold

Possible Solutions	Cookie Dough	Discount Cards
	100	0
	90	5
	80	10
	70	15
	60	20
	50	25
	40	30
	30	35
	20	40
	10	45
	0	50

10. Find the constant rate of change

$$\frac{30-15}{4-2} = \frac{15}{2}$$

$7.50 per car



11. Find the constant rate of change.

Time (seconds)	Distance (yards)
x	y
1.2	6
2.4	8
3.6	10
4.8	12

$$\frac{8-6}{2.4-1.2} = \frac{2}{1.2}$$

1.67 yds per sec

12. Find the slope of the line that passes through these points.

A (12, 2) B (18, -2)

$$m = \frac{2 + +2}{12 - 18} = \frac{4}{-6}$$

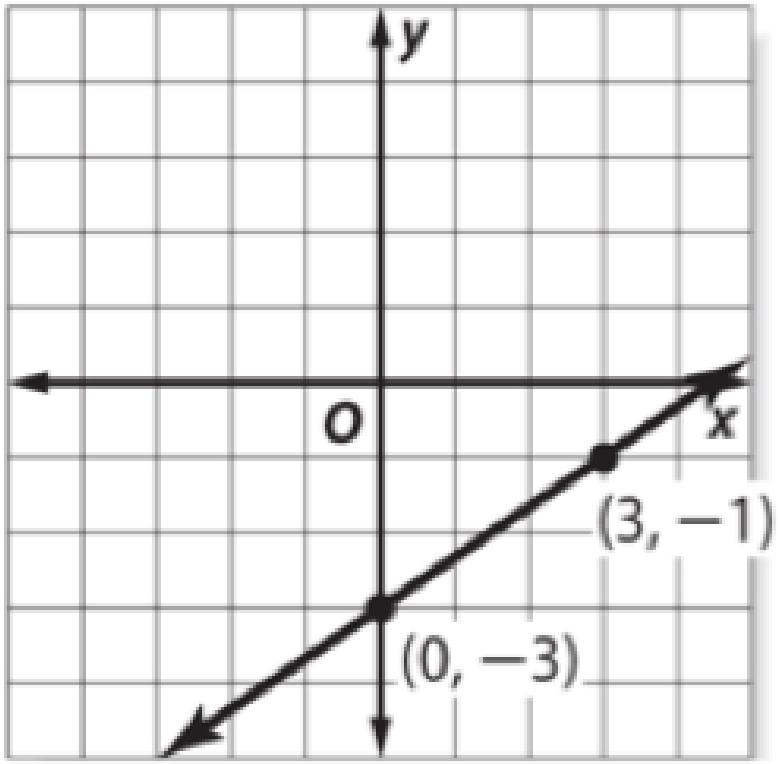
$$m = -\frac{2}{3}$$

A (-2, -3) B (-2, -5)

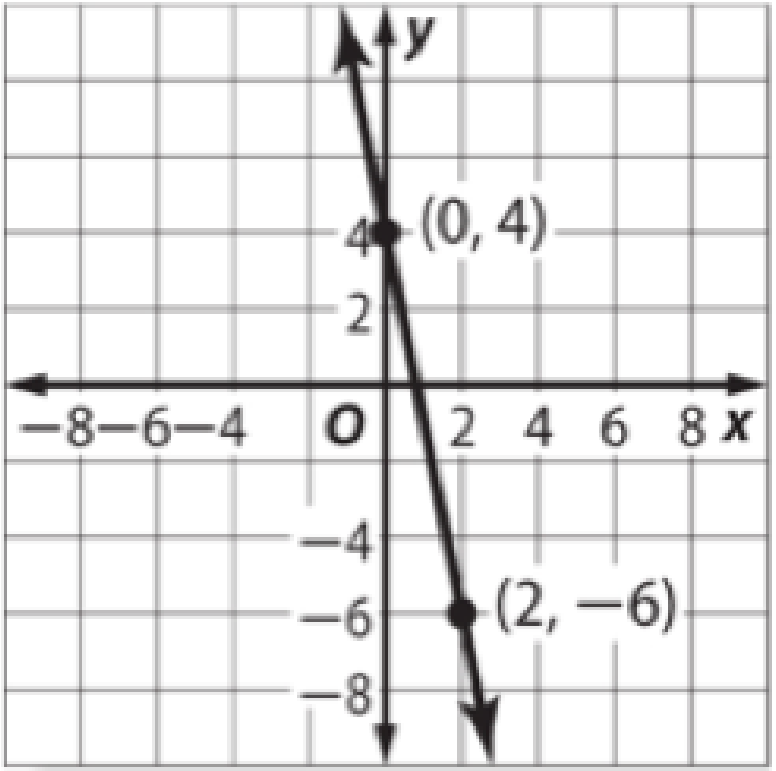
$$m = \frac{-3 + +5}{-2 + +2} = \frac{2}{0}$$

undefined

13. Find the slope of the line.



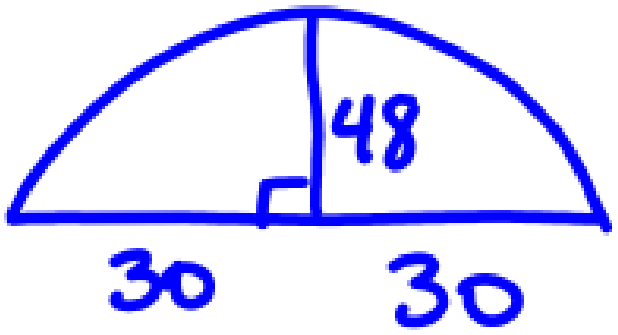
$m = \frac{2}{3}$



$m = \frac{-10}{2} = \frac{-5}{1}$

Applying Slope.

14. A termite mound found in 2005 measured 60 inches wide at the base and 48 inches high. What was the slope of the termite mound?



$$\frac{48}{30} = \frac{8}{5}$$

15. A wheel chair ramp rises 30 inches over its 30 foot length. What is the slope of the ramp expressed as a percent?

$$\frac{\text{rise}}{\text{run}} \qquad \frac{30}{12 \times 30} = \frac{30}{360} = \frac{3}{36} = \frac{1}{12} = 8.3\%$$