

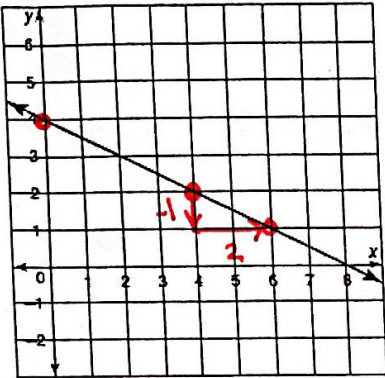
Day 3 – Slopes

Practice Assignment

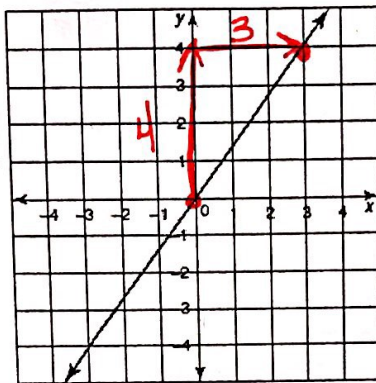
Name: Key Block: _____
 Date: _____

1. Calculate the slope and y-intercept from each graph.

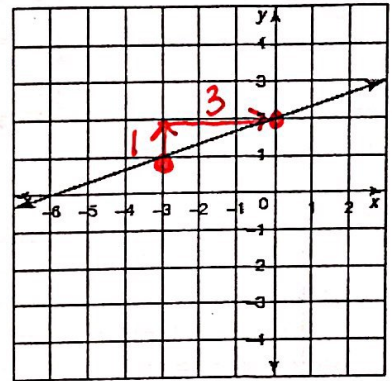
A. Slope = $-\frac{1}{2}$
 Y-int = $(0, 4)$



B. Slope = $\frac{4}{3}$
 Y-int = $(0, 0)$



C. Slope = $\frac{1}{3}$
 Y-int = $(0, 2)$



2. Calculate the slope/rate of change from the table. Then calculate a "unit" rate of change and interpret its meaning.

A. $\frac{18-12}{3-2} = \frac{6 \text{ points}}{1 \text{ touchdown}}$

B. $\frac{42.50-25.50}{5-3} = \frac{\$17}{2 \text{ lawns}} = \frac{\$8.50}{1 \text{ lawn}}$

| Number of Touchdowns | Total Points Scored |
|----------------------|---------------------|
| 2 | 12 |
| 3 | 18 |
| 4 | 24 |
| 5 | 30 |

For every six points scored, there is one touchdown

| Number of Lawns | Total Earned (in Dollars) |
|-----------------|---------------------------|
| 3 | 25.50 |
| 5 | 42.50 |
| 7 | 59.50 |
| 9 | 76.50 |

For every \$8.50 you earned, you mowed 1 lawn.

3. Calculate the slope from a set of points.

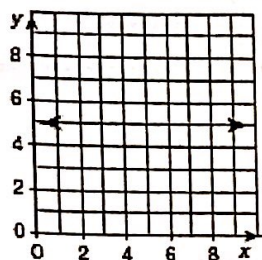
a. $(-1, -24)$ & $(2, 48)$
 x_1, y_1, x_2, y_2

$\frac{48 - (-24)}{2 - (-1)} = \frac{72}{3} = \boxed{24}$

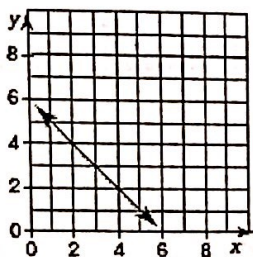
b. $(4, -20)$ & $(-10, 50)$
 x_1, y_1, x_2, y_2

$\frac{50 - (-20)}{-10 - 4} = \frac{70}{-14} = \boxed{-5}$

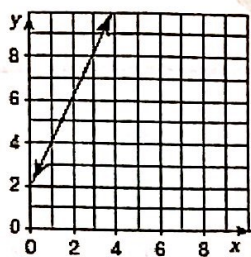
4. Determine if the slopes are positive, negative, undefined, or zero.



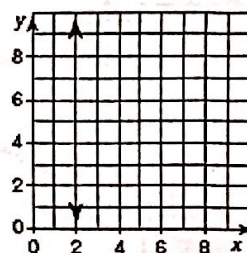
zero



negative

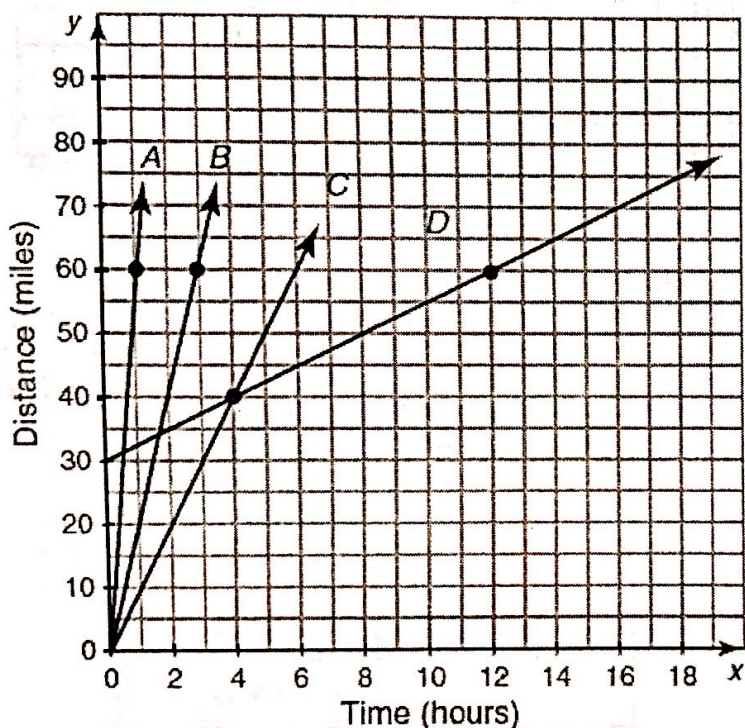


positive



undefined

5. The graph shown represents the distance four cars travel over time. Calculate the rate of change (slope) and then the unit rate of change for each car.



Car A:

$$\frac{60 \text{ miles}}{1 \text{ hour}}$$

Car B:

$$\frac{60 \text{ miles}}{3 \text{ hours}} = \frac{20 \text{ miles}}{1 \text{ hour}}$$

Car C:

$$\frac{40 \text{ miles}}{4 \text{ hours}} = \frac{10 \text{ miles}}{1 \text{ hour}}$$

Car D:

$$\frac{60-40}{12-4} = \frac{20 \text{ miles}}{8 \text{ hours}} = \frac{2.5 \text{ mi}}{1 \text{ hour}}$$

b. Describe how the steepness of the line is related to the rate of change.

The steeper the line, the faster the speed (rate of change)