Name $\qquad$ Period $\qquad$

LT.9.1.1/LT.9.1.2 - I can determine the slope of a line from a graph or by using the formulas.

1. What is the slope of this line?

2. A line passes through the points $(-2,1)$ and $(-4,-7)$. What is the slope of the line?
3. A line passes through the points $(7,6)$ and $(7,14)$. What is the slope of the line?

## LT.9.2.1 - I can calculate and interpret the rate of change for a function.

4. The school nutritionist is ordering apples for school lunches. The price for 6 crates of apples delivered to the school is $\$ 82$. The price for 11 crates is $\$ 137$. By how much does the cost increase for each additional crate of apples purchased?
5. Mrs. Garvin is driving from north of Orlando, Florida, to New York, She starts 90 miles north of Orlando and drives at approximately the same speed for 8 hours. Her distance from Orlando is shown in the graph. What is her average rate of change (speed)?

6. Larson's Deli orders brisket delivered every month. Last month the order was for 38 pounds and cost $\$ 304$, including delivery charges, which are always the same for any size order. The delivery company charges $\$ 38$ for delivery.
a. Write a function $f(x)$ for Larson's Deli's total cost for their monthly orders.
b. Does the function have a constant rate of change? If so, what is it?
c. Describe the meaning of the slope within the context of the situation.

LT.9.3.1/LT.9.3.3 - I can identify functions that do not have a constant rate of change and understand that these functions are not linear, as well as show that functions have constant rates of change.
7. If this table represents a linear function, then what is the value of $a$ ?

| $x$ | $y$ |
| :---: | :---: |
| 2 | 8 |
| 5 | -1 |
| 7 | -7 |
| 12 | $a$ |

8. These are the graphs of $f(x), g(x)$, and $h(x)$. What is the order of the functions from least to greatest according to slope value? NOTE: You must have the slope value of each line shown as work to receive full credit.
$f(x)$

$g(x)$

$h(x)$

9. Which point is not on the graph of the linear function with the other three points? NOTE: You must have sufficient work to back up your answer to receive full credit.
a. $(-8,0)$
b. $(-6,2)$
c. $(-2,3)$
d. $(2,5)$

LT.9.3.2 - I understand when the slope of a line is positive, negative, zero, or undefined.
For problems 10-13, match each graph with the correct value and description of its slope. Each graph should have one number and one letter. No answer choice will be used more than once.


Slope Value

1. Positive
2. Negative
3. Zero
4. Undefined

## Description

A. Falls
B. Horizontal
C. Rises
D. Vertical

