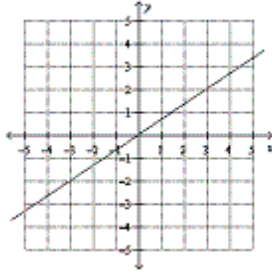


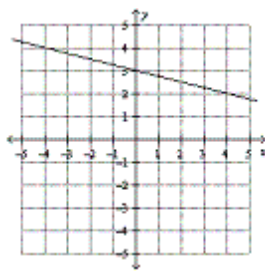
# Slope Unit Study Guide

1. Find the slope of the lines graphed below.  
**Explain.**

A.



B.



2. Find the slope of the lines represented in the tables below. **Explain.**

A.

X	Y
10	-12
13	-8
16	-4

B.

X	Y
0	20
2	6
4	-8

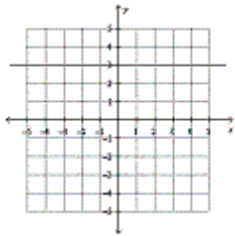
3. Find the slope of the line that contains the points.  
**Explain.**

A. (-1,11) and (3,1).

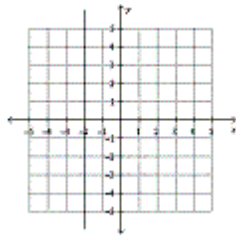
B. (-9,-5) and (6, -5)

4. Find the slope of each line and **explain** mathematically why each slope is true.

A.



B.

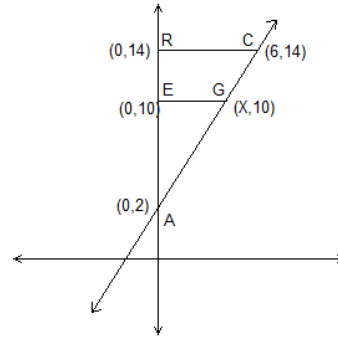


5. The slope of several lines are listed below. Order the following from flattest to steepest. **Explain** your answer.

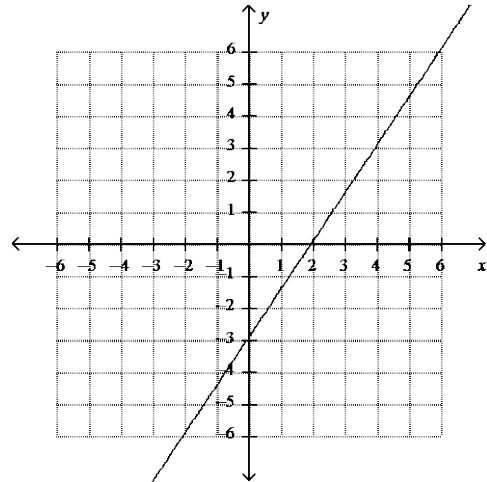
A.  $-\frac{1}{6}$     2    -4     $\frac{1}{2}$

B.  $\frac{4}{3}$      $-\frac{1}{4}$     3    1

6. Find the value of x.



7. Calculate the slope of the line. Construct two unique right triangles to **prove** your answer is correct.



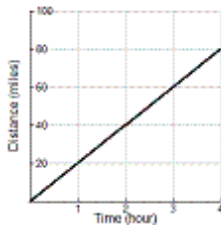
8. Use the representations below to answer the following questions. Defend your answers in writing.

W.

Jenny drove 150 miles in 6 hours. The slope of a line through  $(-1, 30)$  and  $(2, 120)$ .

X.

Y.



Z.

Time (hours)	Distance (miles)
0	25
1	50
2	75

A. Which of the following lines has the smallest slope?

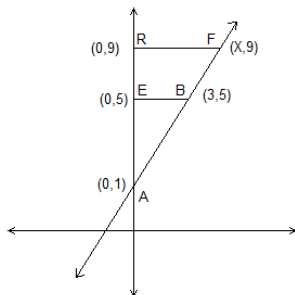
B. Has the largest slope?

C. What is the difference between the largest and smallest slope?

D. Which slope is the flattest?

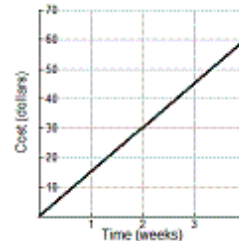
E. Which of the following representations are lines with the same slope?

9. Find the value of  $x$ .



10. Use the representations below to answer the following questions. Defend your answers in writing.

W.



X.

Time (weeks)	Cost (dollars)
1	22
3	66
5	110

Y.

Jane saved \$75 in 5 weeks. The slope of a line through  $(0, 43)$  and  $(6, 163)$ .

Z.

A. Which of the following lines has the largest slope?

B. Has the smallest slope?

C. What is the difference between the largest and smallest slope?

D. Which slope is the steepest?

E. Which of the following representations are lines with the same slope?

## Slope Unit Study Guide

### Answer Section

1. ANS:  
A.  $\frac{2}{3}$  B.  $-\frac{1}{4}$  Explanations may vary.

PTS: 1

2. ANS:  
A.  $\frac{4}{3}$  B.  $-7$

PTS: 1

3. ANS:  
A.  $-\frac{5}{2}$

B. 0

PTS: 1

4. ANS:  
A. Zero

B. Undefined

The x coordinates of the points on a vertical line are the same so the run is 0. Slope is the ratio rise/run and 0 in the denominator makes the fraction undefined.

PTS: 1

5. ANS:  
A.  $-\frac{1}{6}$   $\frac{1}{2}$  2 -4

B.  $-\frac{1}{4}$  1  $\frac{4}{3}$  3

PTS: 1

6. ANS:  
x=4

PTS: 1

7. ANS:  
 $\frac{3}{2}$

PTS: 1

8. ANS:  
A. Y  
B. X  
C.  $30-20=10$   
D. Y  
E. W and Z

PTS: 1

9. ANS:

$x=6$

PTS: 1

10. ANS:

A. X

B. W and Y

C.  $22-15 = 7$

D. X

E. W and Y

PTS: 1