NAME _____ DATE _____ PERIOD _____

2-3 Skills Practice
Rate of Change and Slope

Find the slope of the line that passes through each pair of points.

1. (1, 5), (–1, –3)
4

2. (0, 2), (3, 0)
$-\frac{2}{3}$

3. (1, 9), (0, 6)
3

4. (8, –5), (4, –2)
$-\frac{3}{4}$

5. (–3, 5), (–3, –1)
undefined

6. (–2, –2), (10, –2)
0

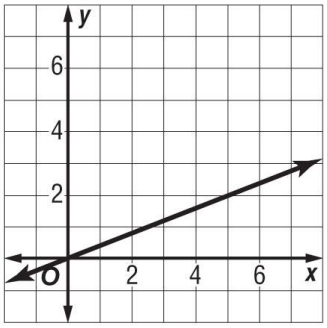
7. (4, 5), (2, 7)
–1

8. (–2, –4), (3, 2)
$\frac{6}{5}$

9. (5, 2), (–3, 2)
0

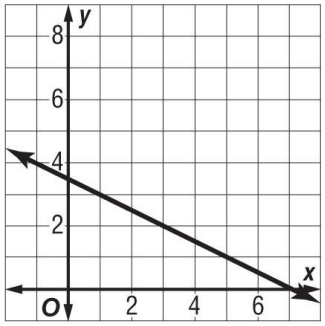
Determine the rate of change of each graph.

10.



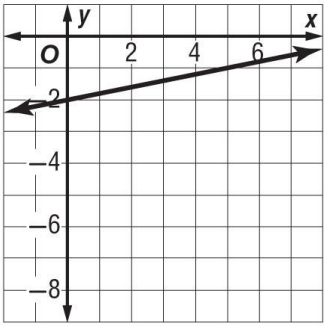
$\frac{2}{5}$

11.



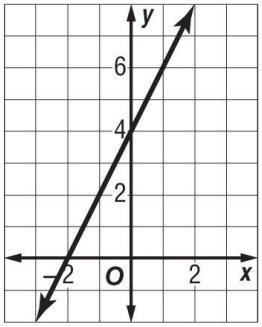
$-\frac{1}{2}$

12.



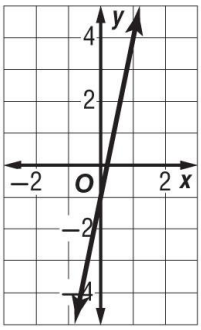
$\frac{1}{5}$

13.



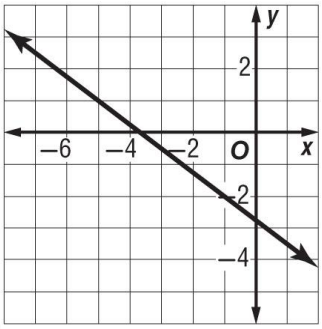
2

14.



5

15.



$-\frac{3}{4}$

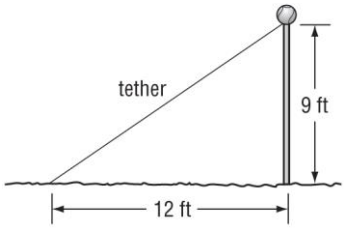
16. HIKING Naomi left from an elevation of 7400 feet at 7:00 A.M. and hiked to an elevation of 9800 feet by 11:00 A.M. What was her rate of change in altitude? 600ft/h

NAME _____ DATE _____ PERIOD _____

2-3 Word Problem Practice

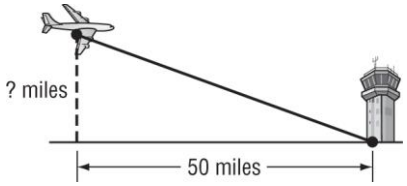
Rate of Change and Slope

1. TETHER A tether is tied tautly to the top of a pole as shown. What is the slope of the tether?



$\frac{3}{4}$

2. AVIATION An airplane descends along a straight-line path with a slope of –0.1 to land at an airport. Use the information in the diagram to determine the initial height of the airplane.



5 miles

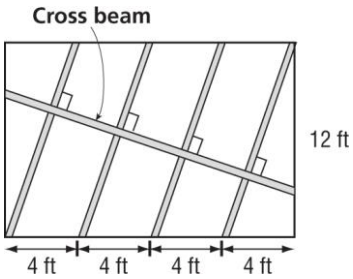
3. ROCK CLIMBING Gail is climbing at a popular rock climbing spot, Boulder Canyon Sport Park in Colorado. The table below shows Gail's altitude above ground during a rock climb up a cliff.

Time	Altitude (m)
10:00	0
10:20	22
10:40	30
11:00	33

Complete the following table of Gail's average rate of ascent.

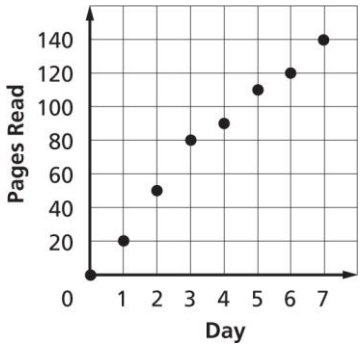
Time Period	Average rate of ascent (m/h)
10:00–10:20	66
10:20–10:40	24
10:40–11:00	9

4. DESIGN An architect is designing a window with slanted interior bars. The crossbeam is perpendicular to the other four bars. What is the slope of the crossbeam?



$-\frac{1}{3}$

5. READING The graph shows how many pages of her book Bridget read each day.



a. Find the average number of pages Bridget read per day.

20

b. On which days did Bridget read more pages than her daily average?

Day 2 and Day 3

c. If Bridget had been able to keep up the pace she had on day 3, how many days would it have taken her to reach page 140?

5 days