Name _____ Period _____

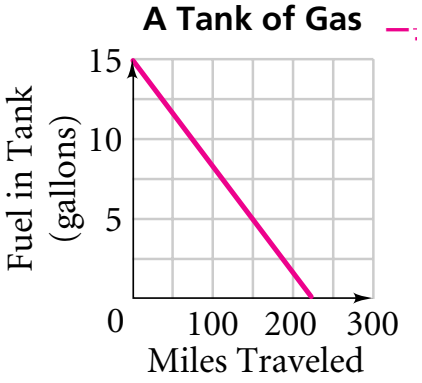
5-1 Practice Worksheet

Find the rate of change. Explain what the rate of change means for each situation.

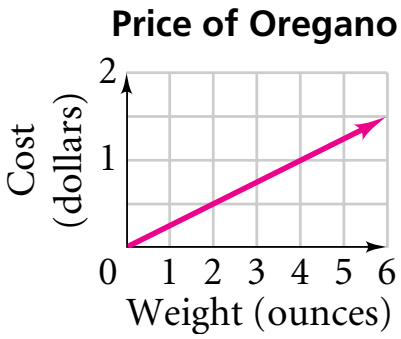
1.

People	Cost (dollars)
2	7.90
3	11.85
4	15.80
5	19.75
6	23.70

2.

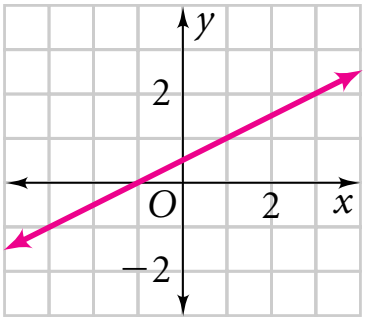


3.

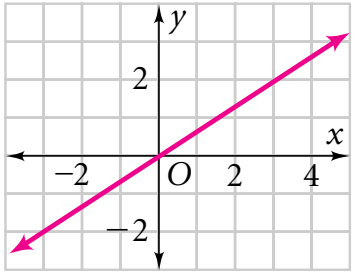


Find the slope of each line.

4.



5.



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

6. (4,8), (8,11)

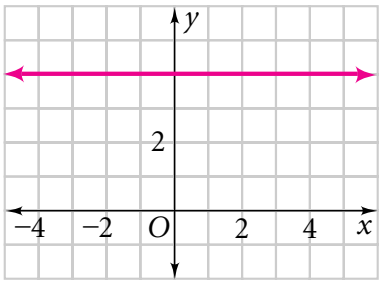
7. (-4, -5), (-9, 1)

8. $(4, 1\frac{2}{3}), (-2, \frac{2}{3})$

9. (-m, n), (3m, -n)

State whether the slope is zero or undefined.

10.



11. (4, 3), (4, -3)

Find the rate of change in each situation.

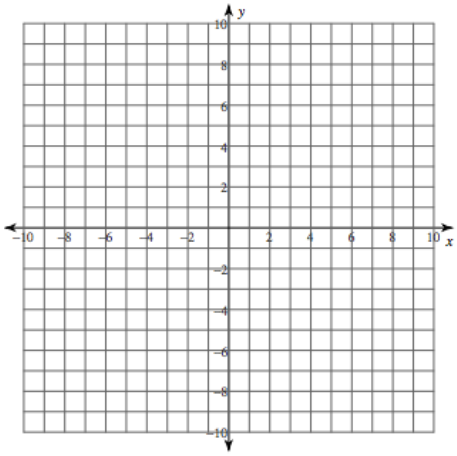
12. A baby is 18 in. long at birth and 27 in. long at ten months.

13. The cost of group museum tickets is $48 for four people and $78 for ten people.

14. You drive 30 miles in one hour and 120 miles in four hours.

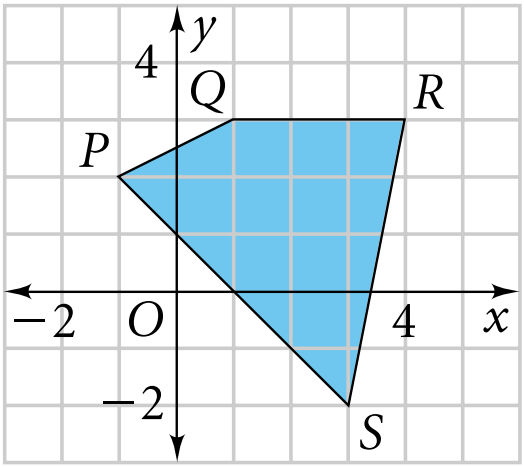
Through the given point, draw a line with the given slope.

15. (-2, 3); slope: $\frac{3}{5}$



Find the slope of the sides of the figure.

16.



Find the value of *x* if the points lie on a line with the given slope.

17. $(x, 3), (2, 8)$; slope = $-\frac{5}{2}$

Tell whether each statement is *true* or *false*. If false, give a counterexample.

18. A rate of change must be either positive or zero.

19. All horizontal lines have the same slope.

20. A line with slope 1 always passes through the origin.

21. Two lines may have the same slope.

22. The slope of a line that passes through Quadrant III must be negative.

23. A line with slope 0 never passes through the point (0, 0).

24. Two points with the same x-coordinate are always on the same vertical line.

Do the points in lie on the same line? How can you tell without graphing?

25. $D(-2, 3)$, $E(0, 1)$, $F(2, 1)$

Multiple Choice

26. A line has slope $\frac{4}{3}$. Through which two points could this line pass?

a) (24, 19), (8, 10) b) (10, 8), (16, 0) c) (28, 10), (22, 2) d) (4, 20), (0, 17)

27. A horizontal line passes through the point (5, 22). Which other point does the line contain?

a) (5, 2) b) (0, 22) c) (22, 5) d) (0, 5)