

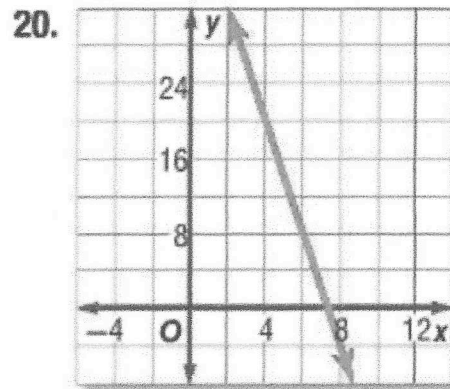
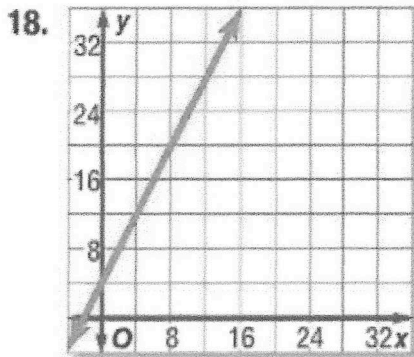
Find the slope of the line that passes through each pair of points. Express as a fraction in simplest form.

12.  $(-2, 11), (5, 6)$

14.  $(-1.5, 3.5), (4.5, 6)$

16.  $(-8, -0.5), (-4, 5)$

Determine the rate of change of each graph.



22. **CCSS REASONING** The table shows your height on a water slide at various time intervals.

- Graph the height versus the time on the water slide.
- Find the average rate of change in a rider's height between 1 and 3 seconds.
- Find the average rate of change in a rider's height between 0 and 5 seconds.
- What is another word for *rate of change* in this situation?

Time (s)	Height (ft)
0	120
1	90
2	60
3	30
4	0
5	0

Determine the rate of change for each equation.

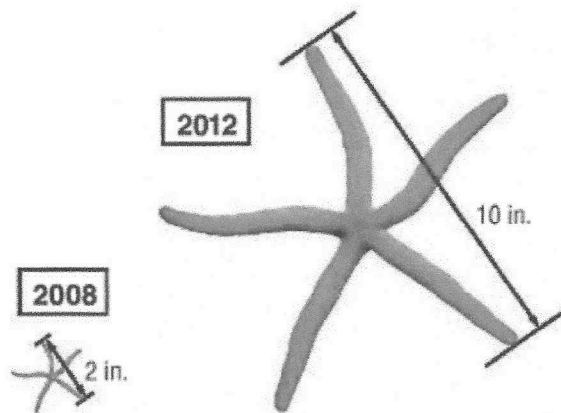
24.  $-2y - 16x = 41$

26.  $20x + 85y = 120$

28.  $\frac{1}{6}y + \frac{3}{8}x = 24$

30. **MARINE LIFE** The illustrations show the growth of a starfish over time.


- a. Find the average rate of change in the measure over time.
- b. Predict the size of the starfish in 2014.



Find the value of  $r$  so that the line that passes through each pair of points has the given slope.

32.  $(8, 1), (5, r), m = \frac{1}{3}$

34.  $(8, -2), (r, -6), m = -4$

36.  **CRITIQUE** Patty and Tim are asked to find the slope of the line passing through the points  $(4, 3)$  and  $(7, 9)$ . Is either of them correct? Explain.

*Patty*

$$m = \frac{9 - 3}{7 - 4}$$
$$= \frac{6}{3} \text{ or } 2$$

*Tim*

$$m = \frac{7 - 4}{9 - 3}$$
$$= \frac{3}{6} \text{ or } \frac{1}{2}$$