

GUIDED PRACTICE

1. **Vocabulary** The slope of any nonvertical line is ___?___. (*positive or constant*)

SEE EXAMPLE 1

p. 310

2. The table shows the volume of gasoline in a gas tank at different times. Find the rate of change for each time interval. During which time interval did the volume decrease at the greatest rate?

Time (h)	0	1	3	6	7
Volume (gal)	12	9	5	1	1

SEE EXAMPLE 2

p. 311

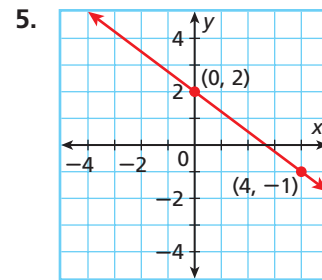
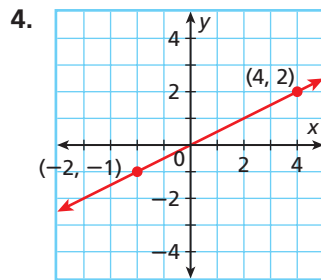
3. The table shows a person's heart rate over time. Graph the data and show the rates of change.

Time (min)	0	2	5	7	10
Heart Rate (beats/min)	64	92	146	84	64

SEE EXAMPLE 3

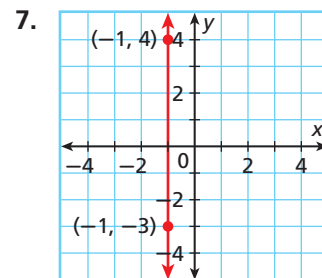
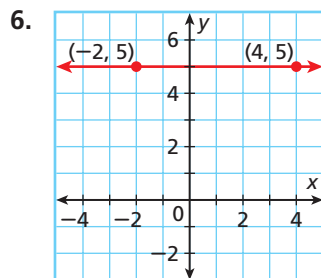
p. 311

Find the slope of each line.



SEE EXAMPLE 4

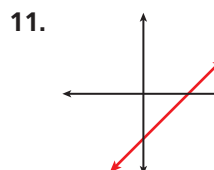
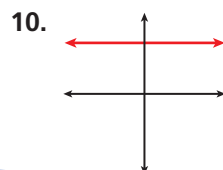
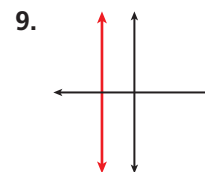
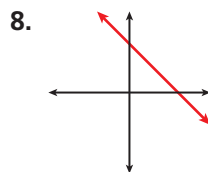
p. 312



SEE EXAMPLE 5

p. 312

Tell whether the slope of each line is positive, negative, zero, or undefined.



PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
12	1
13	2
14–15	3
16–17	4
18–19	5

Extra Practice

Skills Practice p. S12
Application Practice p. S32

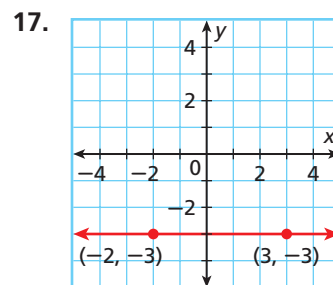
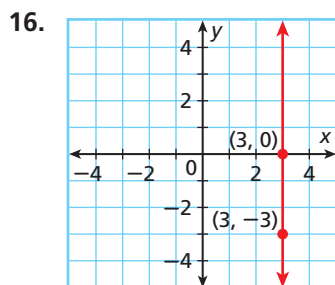
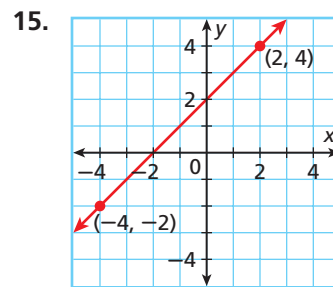
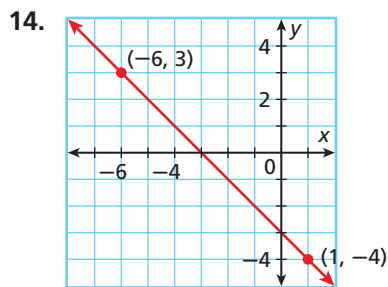
12. The table shows the length of a baby at different ages. Find the rate of change for each time interval. Round your answers to the nearest tenth. During which time interval did the baby have the greatest growth rate?

Age (mo)	3	9	18	26	33
Length (in.)	23.5	27.5	31.6	34.5	36.7

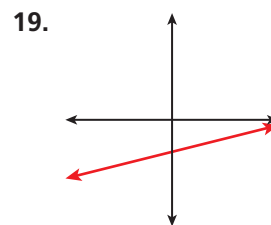
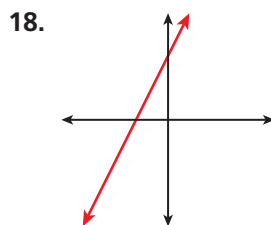
13. The table shows the distance of an elevator from the ground floor at different times. Graph the data and show the rates of change.

Time (s)	0	15	23	30	35
Distance (m)	30	70	0	45	60

Find the slope of each line.



Tell whether the slope of each line is positive, negative, zero, or undefined.



Travel

The Incline Railway's climb up Lookout Mountain has been called "America's Most Amazing Mile." A round-trip on the railway lasts about 1.5 hours.

20. **Travel** The Lookout Mountain Incline Railway in Chattanooga, Tennessee, is the steepest passenger railway in the world. A section of the railway has a slope of about 0.73. In this section, a vertical change of 1 unit corresponds to a horizontal change of what length? Round your answer to the nearest hundredth.
21. **Critical Thinking** In Lesson 5-1, you learned that in a linear function, a constant change in x corresponds to a constant change in y . How is this related to slope?