

Name

6-3B

Lesson Master

Questions on SPUR Objectives
See pages 392–395 for objectives.

PROPERTIES

Objective D

1. A horizontal line passes through $(a, 1)$ and $(b, -5)$. How are a and b related?
2. A line has slope of $-\frac{2}{3}$. As you move right three unit on the line, how many units do you move down?
3. A line with an undefined slope passes through $(3, -2)$ and $(x, 2)$. What is the value of x ?
4. A line has an undefined slope. Some coordinates of the points on the line are given in the table.

a. Fill in the remaining entries in the table.

x	y
-4	-5
	-2
	0
	3

- b. Explain why the line has an undefined slope.

5. *Multiple Choice.* Which term best describes the slope of a line with no vertical change?
- A positive B negative C zero D undefined

USES

Objective E

6. Kennedy uses an extension ladder to clean out leaves from the gutters of his house. The ladder rests against the gutters 16 feet off the ground and the base of the ladder is 8 feet from the bottom of the house. At what slope is the ladder resting against the house?
7. A child climbs up a 4-foot rock wall to reach the top of a slide. The end of the slide is 8 feet from the bottom of the wall. What is the slope at which the child slides down the slide?

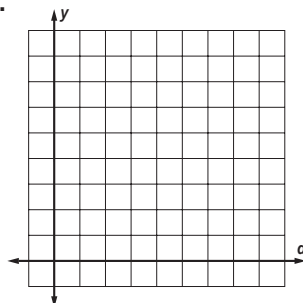
Name _____

6-3B

page 2

In 8–10, use this information: In Northfield, the building code specifies that a handicap-access ramp can rise no more than 1 inch for each foot of ground level.

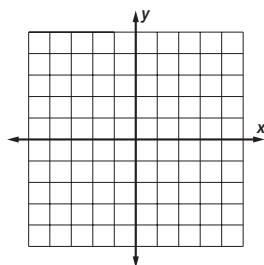
8. Draw such a ramp.
9. What is the slope of such a ramp?
10. The maximum height of a handicap-access ramp is 30 inches. How many feet along the ground will a ramp of this type take up?
11. One of the steepest streets in San Francisco is 22nd Street. It rises 1 foot for every 3.17 feet of level ground. What is the slope of this street?



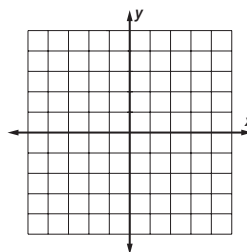
REPRESENTATIONS Objective H

In 12–15, a line's slope and a point on it are given. Graph the line.

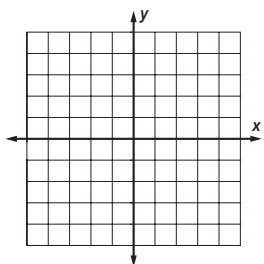
12. point (4, 7), slope 0



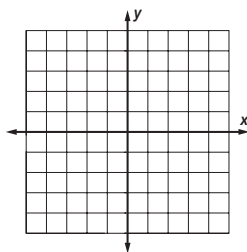
13. point (–5, 6), undefined slope



14. point (4, 7), slope –2



15. point (–5, 6), slope $\frac{2}{5}$



REPRESENTATIONS Objective D

16. Give the slope of the line.

