Name

6-2B Lesson Master

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

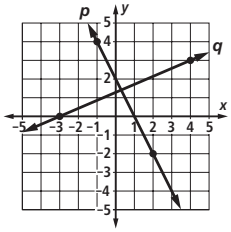
SKILLS Objective A

In 1 and 2, find the slope of the line through the two points.

1. (5, 20) and (3, 15) _____

2. (–7, 5) and (7, 5) _____

In 3 and 4, refer to the graph below. Find the slope of the line.



3. line p _____

4. line q _____

5. The points (3, 2) and (–4, a) lie on a line with slope $-\frac{4}{7}$. Find the value of a. _____

6. A line has equation $y = \frac{3}{4}x + 7$. Find its slope. _____

In 7–9, an equation for a line is given. Find two points on the line. Then find the slope of the line.

7. $y = -\frac{1}{2}x + 3$ _____; _____

8. $y = 5x - 2$ _____; _____

9. $x + 3y = 9$ _____; _____

10. Calculate the slope of the line through (10, 7) and (–10, –7). _____

In 11–14, use the table that gives the number of toothpicks used in the sequence of designs below.

Number of Triangles	Number of Toothpicks
1	3
2	5
3	7
4	9
5	11
?	?

11. If the design is continued to complete the next row of the table, what ordered pair is given? _____

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12. How do you know that the points in the table lie on the same line?

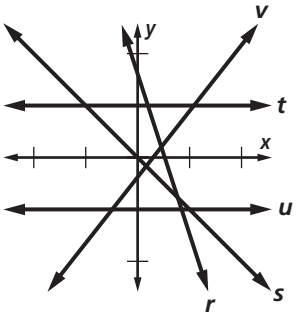
13. Find the rate of change between any two points on the line.

14. Describe the real-world meaning of the rate of change.

PROPERTIES Objective D

15. A line with a slope of zero passes through the points (v, k) and (w, z). How is k related to z?

In 16–18, use the figure below.



16. Which lines(s) could have the indicated slope?

    a. positive slope

    b. negative slope

    c. slope = 0

17. Which line has the steepest negative slope?

18. Which line could have the equation $y = -x$?

19. Do the points (8, –9), (–2, –39), and (6, –15) lie on the same line? How can you tell?

20. The points (2, –3) and $(x, 8)$ are on a line with slope $\frac{11}{3}$. Find the value of x.