

LESSON
4.6**Practice** *continued*
For use with pages 253–259

26. $x = 5, y = -30$

27. $x = \frac{1}{6}, y = 1$

28. $x = 8, y = -3$

29. $x = 6, y = 102$

30. $x = -8, y = 64$

31. $x = 15, y = 9$

32. **Hooke's Law** The force F required to stretch a spring varies directly with the amount the spring is stretched s . Eight pounds is needed to stretch a spring 8 inches.

a. Write a direct variation equation that relates F and s .

b. How much force is required to stretch a spring 25 inches?

33. **Basement Waterproofing** One way to keep moisture out of your basement is to paint the walls with a waterproof paint. The number g (of gallons) of paint you need varies directly with the area A of the basement. One gallon of paint covers 100 square feet.

a. Write a direct variation equation that relates g and A .

b. How many gallons do you need to cover 530 square feet?

c. How many square feet does 8.5 gallons of paint cover?

34. **Downloading Files** The table shows the amount of time t (in seconds) it takes to download a file of size s (in kilobytes).

a. Explain why s varies directly with t .

b. Write a direct variation equation that relates s and t .

c. How long will it take to download an 800-kilobyte file?
Round your answer to the nearest second.

Time, t (sec)	File size, s (kb)
15	420
30	840
45	1260