

43. **MULTI-STEP PROBLEM** On a typical day with light winds, the 1800 mile flight from Charlotte, North Carolina, to Phoenix, Arizona, takes longer than the return trip because the plane has to fly into the wind.



- a. The flight from Charlotte to Phoenix is 4 hours 30 minutes long, and the flight from Phoenix to Charlotte is 4 hours long. Find the average speed (in miles per hour) of the airplane on the way to Phoenix and on the return trip to Charlotte.
- b. Let s be the speed (in miles per hour) of the plane with no wind, and let w be the speed (in miles per hour) of the wind. Use your answer to part (a) to write and solve a system of equations to find the speed of the plane with no wind and the speed of the wind.
44. **TX TAKS REASONING** The students in the graduating classes at the three high schools in a school district have to pay for their caps and gowns. A cap-and-gown set costs x dollars, and an extra tassel costs y dollars. At one high school, students pay \$3262 for 215 cap-and-gown sets and 72 extra tassels. At another high school, students pay \$3346 for 221 cap-and-gown sets and 72 extra tassels. How much will students at the third high school pay for 218 cap-and-gown sets and 56 extra tassels? *Explain.*
45. **CHALLENGE** A clothing manufacturer makes men's dress shirts. For the production process, an ideal sleeve length x (in centimeters) for each shirt size and an allowable deviation y (in centimeters) from the ideal length are established. The deviation is expressed as $\pm y$. For a specific shirt size, the minimum allowable sleeve length is 62.2 centimeters and the maximum allowable sleeve length is 64.8 centimeters. Find the ideal sleeve length and the allowable deviation.



MIXED REVIEW FOR TAKS

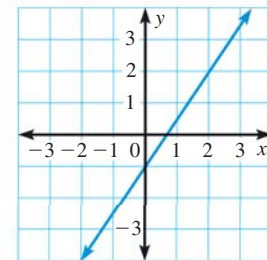
TAKS PRACTICE at classzone.com

REVIEW

Lesson 4.4;
TAKS Workbook

46. **TX TAKS PRACTICE** What is the slope of the linear function shown in the graph? *TAKS Obj. 3*

- (A) $\frac{1}{3}$ (B) $\frac{2}{3}$
(C) $\frac{3}{2}$ (D) 3



REVIEW

TAKS Preparation
p. 350;
TAKS Workbook

47. **TX TAKS PRACTICE** Suppose the line shown is translated 2 units to the left and 1 unit down. Which point would lie on the translated line? *TAKS Obj. 6*

- (F) $(-2, -2)$ (G) $(-1, 1)$ (H) $(0, 2)$ (J) $(2, 3)$

