GEOMETRY In Exercises 42 and 43, consider squares with side lengths of 1, 2, 3, and 4 centimeters.

42. Copy and complete the table.

Side length, s (cm)	1	2	3	4
Perimeter, P (cm)	?	?	?	?
Area, A (cm^2)	?	?	?	?

43. Tell whether the given variables show direct variation. If so, write an equation relating the variables. If not, explain why not.

   a. s and P **b.** s and A **c.** P and A

44. **TAKS REASONING** Each year, gray whales migrate from Mexico's Baja Peninsula to feeding grounds near Alaska. A whale may travel 6000 miles at an average rate of 75 miles per day.

   a. Write an equation that gives the distance d_1 traveled in t days of migration.

   b. Write an equation that gives the distance d_2 that remains to be traveled after t days of migration.

   c. Tell whether the equations from parts (a) and (b) represent direct variation. *Explain* your answers.

   Animated Algebra at classzone.com

45. **CHALLENGE** At a jewelry store, the price p of a gold necklace varies directly with its length ℓ. Also, the weight w of a necklace varies directly with its length. Show that the price of a necklace varies directly with its weight.

MIXED REVIEW FOR TAKS

46. **TAKS PRACTICE** An Internet service provider has a 15% off sale on a 6 month subscription. Which statement best represents the functional relationship between the sale price of the subscription and the original price? *TAKS Obj. 1*

   (A) The original price is dependent on the sale price.

   (B) The sale price is dependent on the original price.

   (C) The sale price and the original price are independent of each other.

   (D) The relationship cannot be determined.

47. **TAKS PRACTICE** Rose works as a salesperson at a car stereo store. She earns an 8% commission on every sale. She wants to earn $300 from commissions in the next 5 days. What is the average amount of car stereo sales Rose must make per day to reach her goal? *TAKS Obj. 9*

   (F) $480   (G) $750   (H) $1000   (J) $3750