

## PROBLEM SOLVING

### EXAMPLE 6

on p. 137  
for Exs. 53–57

53. **THE DEAD SEA** For the period 1999–2004, the maximum depth of the Dead Sea decreased by 9.9 feet. The maximum depth in 2004 was 1036.7 feet. What was the maximum depth in 1999?

**TEXAS @HomeTutor** for problem solving help at classzone.com

54. **CRAFTS** You purchase a cane of polymer clay to make pendants for necklaces. The cane is 50 millimeters long. How thick should you make each pendant so that you will have 20 pendants of uniform thickness?



**TEXAS @HomeTutor** for problem solving help at classzone.com

55. **TRAMPOLINES** A rectangular trampoline has an area of 187 square feet. The length of the trampoline is 17 feet. What is its width?

56. **WHEELCHAIRS** The van used to transport patients to and from a rehabilitation facility is equipped with a wheelchair lift. The maximum lifting capacity for the lift is 300 pounds. The wheelchairs used by the facility weigh 55 pounds each. What is the maximum weight of a wheelchair occupant who can use the lift?

57. **TAKS REASONING** In Everglades National Park in Florida, there are 200 species of birds that migrate. This accounts for  $\frac{4}{7}$  of all the species of birds sighted in the park.

- Write an equation to find the number of species of birds that have been sighted in Everglades National Park.
- There are 600 species of plants in Everglades National Park. Are there more species of birds or of plants in the park? *Explain.*

58. **TAKS REASONING** Describe a real-world situation that can be modeled by the equation  $15x = 135$ . Solve the equation and explain what the solution means in this situation.

59. **MULTIPLE REPRESENTATIONS** A box jellyfish can travel at a rate of 6.5 feet per second.

- Making a Table** Make a table that shows the distance  $d$  the jellyfish can travel after 1, 2, 3, 4, and 5 seconds.
- Drawing a Graph** Graph the ordered pairs from the table in a coordinate plane. How long does it take the jellyfish to travel 26 feet?
- Writing an Equation** Write and solve an equation to find the time it takes the jellyfish to travel 26 feet.



**AnimatedAlgebra** at classzone.com