14. DVD STORAGE A stackable storage rack holds 22 DVDs and costs $21. How much would it cost to buy enough racks to hold 127 DVDs?

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15. FRAMING For an art project, you make a square print with a side length of 8 inches. You make a frame using strips of wood $1\frac{1}{4}$ inches wide. What is the area of the frame?

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16. MOUNTAIN BOARDS You have saved $70 to buy a mountain board that costs $250. You plan to save $10 each week. How many weeks will it take to save for the mountain board?

17. HIKING You are hiking. The total weight of your backpack and its contents is $13\frac{3}{8}$ pounds. You want to carry no more than 15 pounds. How many extra water bottles can you add to your backpack if each bottle weighs $\frac{3}{4}$ pound?

18. PIZZA Thick crust pizza requires about 0.15 ounce of dough per square inch of surface area. You have two rectangular pans, one that is 16 inches long and 14 inches wide, and one that is 15.5 inches long and 10 inches wide. How much more dough do you need to make a thick crust pizza in the larger pan than in the smaller one?

19. SONAR A diver uses a sonar device to determine the distance to her diving partner. The device sends a sound wave and records the time it takes for the wave to reach the diving partner and return to the device. Suppose the wave travels at a rate of about 4800 feet per second.

FPO

a. The wave returns 0.2 second after it was sent. How far did the wave travel?

b. How far away is the diving partner?

20. TAKS REASONING A gardener is reseeding a city park that has the shape of a right triangle with a base of 150 feet and a height of 200 feet. The third side of the park is 250 feet long.

a. One bag of grass seed covers 3750 square feet and costs $27.50. How many bags are needed? What is the total cost?

b. Wire fencing costs $23.19 for each 50 foot roll. How much does it cost to buy fencing to enclose the area?

c. Fence posts cost $3.19 each and should be placed every 5 feet. How many posts are needed, and how much will they cost altogether? *Explain.*

○ = WORKED-OUT SOLUTIONS on p. WS1   **= TAKS PRACTICE AND REASONING**   **◆ = MULTIPLE REPRESENTATIONS**