21. ◆ **MULTIPLE REPRESENTATIONS** Homeowners are building a square closet in a rectangular room that is 24 feet long and 18 feet wide. They want the remaining floor area to be at least 400 square feet. Because they don't want to cut any of the 1 foot by 1 foot square floor tiles, the side length of the closet floor should be a whole number of feet.

    a. Making a Table Make a table showing possible side lengths of the closet floor and the remaining area for each side length.

    b. Writing an Inequality Write an inequality to describe the situation. Use your table to find the greatest possible side length of the closet floor.

22. ◆ **TAKS REASONING** A farmer plans to build a fence around a rectangular pen that is 16 feet long. The area of the pen is 80 square feet. Is 40 feet of fencing enough to fence in the pen? *Explain*.

23. **CHALLENGE** You and your friend live 12 miles apart. You leave home at the same time and travel toward each other. You walk at a rate of 4 miles per hour and your friend bicycles at a rate of 11 miles per hour.

    a. How long after you leave home will you meet? How far from home will each of you be?

    b. Suppose your friend bicycles at a rate of 12 miles per hour. How much sooner will you meet? How far from home will each of you be?

MIXED REVIEW FOR TAKS
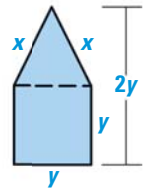
TAKS **PRACTICE** at classzone.com

24. ◆ **TAKS PRACTICE** The figure shown is made up of a triangle and a square. Which expression gives the area of the figure? *TAKS Obj. 8*

    A $2y + \dfrac{xy}{2}$ **B** $y^2 + \dfrac{xy}{2}$

    C $y^2 + \dfrac{x^2}{2}$ **D** $\dfrac{3y^2}{2}$

25. ◆ **TAKS PRACTICE** Suppose the perimeter of the figure shown is 24 inches and the value of x is 6 inches. Find the value of y. *TAKS Obj. 8*

    F 3 in.   **G** 4 in.   **H** 6 in.   **J** 9 in.

QUIZ *for Lessons 1.4–1.5*

Write an equation or an inequality. *(p. 21)*

    1. 4 more than twice a number n is equal to 25.

    2. The quotient of a number x and 2 is no more than 9.

Check whether the given number is a solution of the equation or inequality. *(p. 21)*

    3. $13 - 2x = 5$; 4   **4.** $5d - 4 \geq 16$; 4   **5.** $4y + 3 \geq 15$; 3

    6. **CAR TRAVEL** One car travels about 28.5 miles on each gallon of gas. Suppose the average price of gas is $2 per gallon. About how much would the gas for a 978 mile trip cost? *(p. 28)*