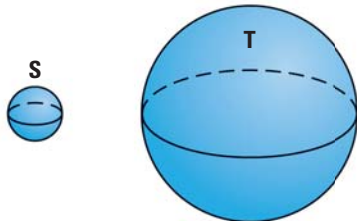# 14 TAKS PRACTICE

PRACTICE FOR TAKS OBJECTIVE 8

1. The ratio of the radii for the spheres shown is $1 : 4$. If the surface area of sphere S is 36 square inches, what is the surface area of sphere T?

A 2.25 in.^{2}

B 144 in.^{2}

C 576 in.^{2}

D 2304 in.^{2}

2. The volume of a rectangular prism is 1275 cubic feet. If the length, width, and height are all changed to $\frac{1}{4}$ their original size, approximately what will be the volume of the new prism?

F 19.9 ft^3

G 79.7 ft^3

H 319 ft^3

J 5100 ft^3

**3.** What is the area of the unshaded part of the rectangle below?
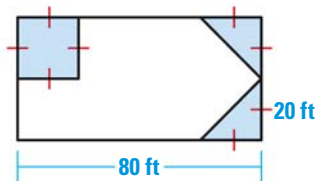
A 800 ft^2

B 2000 ft^2

C 2400 ft^2

D 3200 ft^2

4. Two fish tanks that are rectangular prisms are similar. One holds 8 gallons of water, and the other holds 20 gallons of water. The length of the 8 gallon tank is 18 inches. What is the approximate length of the 20 gallon tank?

F 13.3 in.
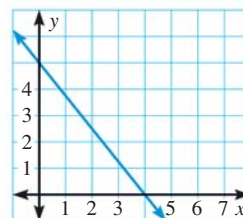
G 24.4 in.

H 28.5 in.

J 45.0 in.

5. The radius of the right cylinder is doubled. How many times greater than the original volume is the cylinder's new volume?
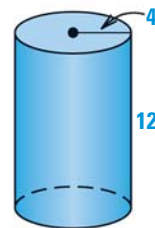
A $\frac{1}{4}$

B $\frac{1}{2}$

C 4

D 8

MIXED TAKS PRACTICE

6. Which equation best represents a line parallel to the line shown? *TAKS Obj. 7*

F $5x + 3y = 10$

G $5x + 4y = 8$

H $-5x + 3y = 15$

J $-4x + 5y = 20$