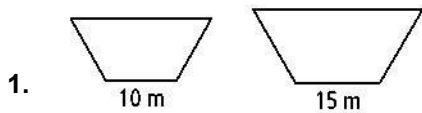


HW-44

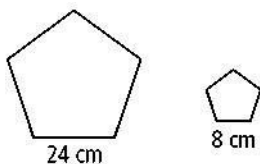
Perimeters and Areas of Similar Figures

The figures in each pair are similar. Compare the first figure to the second. Give the ratio of the perimeters and the ratio of the areas.



The figures in each pair are similar. The area of one figure is given. Find the area of the other figure to the nearest whole number.

2. area of larger pentagon = 135 cm^2

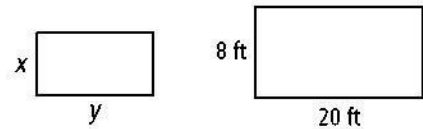


3. It took James 5 h to paint an 8 ft by 24 ft wall. At this rate, how long would it take him to paint a 12 ft by 36 ft wall?

Find the scale factor and the ratio of perimeters for each pair of similar figures. 4.

two regular pentagons with areas 144 in.^2 and 36 in.^2

Algebra Find the values of x and y when the smaller similar rectangle shown here has the area given.



5. 10 ft^2

6. The area of a regular octagon is 45 ft^2 . What is the area of a regular octagon with sides $\frac{1}{3}$ the length of sides of the larger octagon?

7. The longer base of a right trapezoid is 12 ft. The longer base of a similar right trapezoid is 30 ft. The area of the smaller right trapezoid is 20 ft^2 . What is the area of the larger right trapezoid?

The pair of figures is similar. Compare the larger figure to the smaller figure. Find the ratio of their perimeters and the ratio of their areas.

8. 9.

