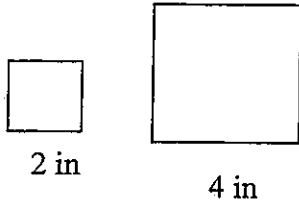


Perimeters and Areas of Similar Figures

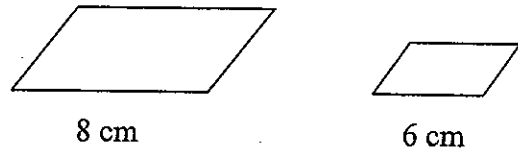
The figures in each pair are similar. Compare the first figure to the second. Give the ratio of the side lengths, ratio of the perimeters and ratio of the areas.

1.



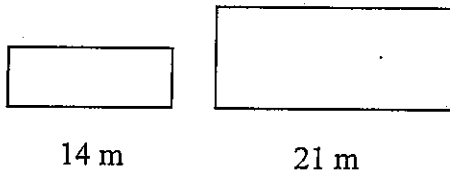
Ratio of side lengths: $\frac{2}{4}$ or $\frac{1}{2}$
 Ratio of perimeters: $\frac{1}{2}$
 Ratio of areas: $\frac{1^2}{2^2} = \frac{1}{4}$

2.



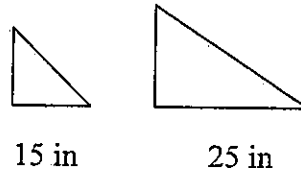
Always equal } Ratio of side lengths: $\frac{6}{8} = \frac{3}{4}$
 Ratio of perimeters: 3:4
 Ratio of areas: $\frac{3^2}{4^2} = \frac{9}{16}$ or 9 to 16

3.



Ratio of side lengths:
 Ratio of perimeters:
 Ratio of areas:

4.



Ratio of side lengths:
 Ratio of perimeters:
 Ratio of areas:

5. The area of two regular octagons are 4 ft^2 and 16 ft^2 . Find the ratio of side lengths and ratio of perimeters from smallest to largest.

6. The area of two trapezoids are 49 cm^2 and 9 cm^2 . Find the ratio of side lengths and ratio of perimeters from smallest to largest.

7. Two triangles are similar. The area of the smaller triangle is about 50 cm^2 . The area of the larger triangle is 98 cm^2 .

Find the area of the larger triangle.

8. The side length ratio of two similar polygons is given. Find the ratio of their perimeters and the ratio of their areas.

A. 3 : 1

B. 2 : 5

C. $\frac{1}{2}$

Ratio of perimeters:

Ratio of perimeters:

Ratio of perimeters:

Ratio of area:

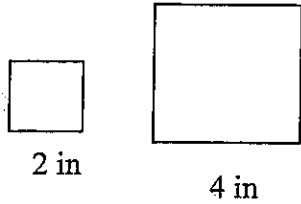
Ratio of areas:

Ratio of areas:

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 side lengths, ratio of the perimeters and ratio of the areas.

1.

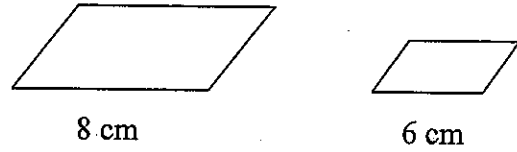


Ratio of side lengths:

Ratio of perimeters:

Ratio of areas:

2.

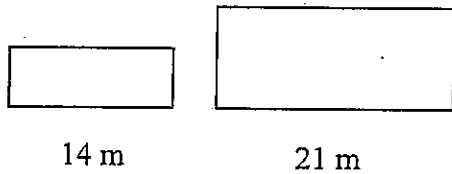


Ratio of side lengths:

Ratio of perimeters:

Ratio of areas:

3.

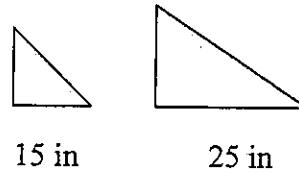


Ratio of side lengths:

Ratio of perimeters:

Ratio of areas:

4.



Ratio of side lengths:

Ratio of perimeters:

Ratio of areas:

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Ratio of perimeters:

Ratio of perimeters:

Ratio of perimeters:

Ratio of area:

Ratio of areas:

Ratio of areas: