Name : _____

MATH
MONKS

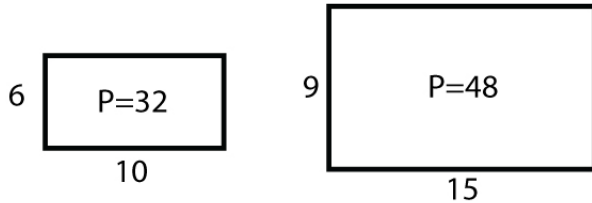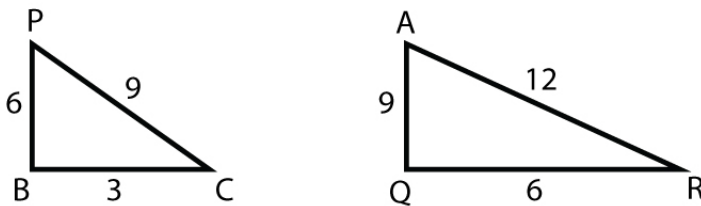## Similar Polygons: Ratio of Perimeters and Area Worksheet

1 The areas of two similar polygons are in the ratio of 64 : 81. Find the ratio of the corresponding sides.

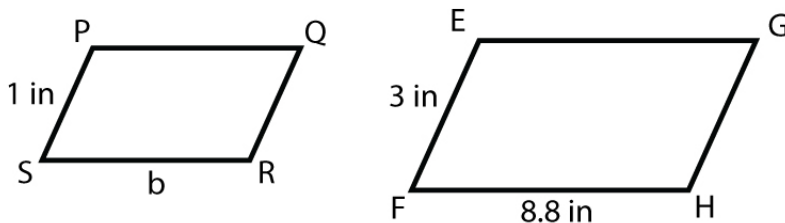**2** Find the ratio of the perimeters of the similar rectangles.

6 | P=32 |
10

9 | P=48 |
15

3 Find the areas of the given triangles and find the scale factor between them.
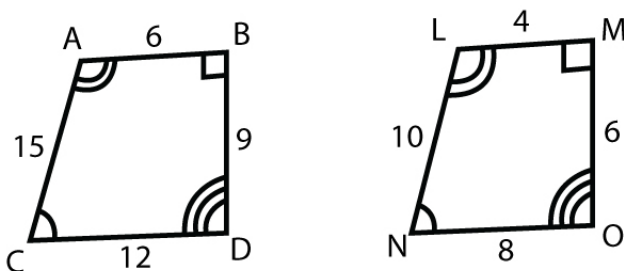
P
6   9
B   3   C

A
9   12
Q   6   R

4 Two triangles are similar. The ratio of the corresponding sides of these triangles is 2 : 3. If the altitude of the smaller triangle is 4.5 feet, find the corresponding altitude of the larger triangle.

5 Two parallelograms shown below are similar. Find the perimeter of the parallelogram PQRS.

P   Q
1 in
S   b   R

E   G
3 in
F   8.8 in   H

6 Decide whether the figures given below are similar. If similar, write a similarity statement.

A   6   B
15   9
C   12   D

L   4   M
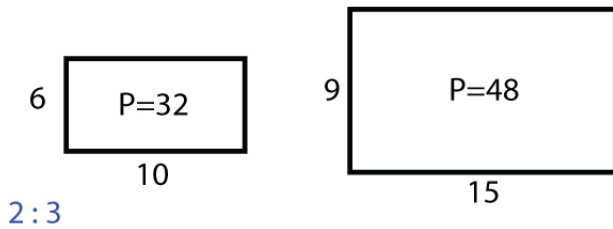10   6
N   8   O

Name : _____

## Similar Polygons: Ratio of Perimeters and Area Worksheet

Answers

1 The areas of two similar polygons are in the ratio of 64 : 81. Find the ratio of the corresponding sides.

8 : 9

2 Find the ratio of the perimeters of the similar rectangles.

6 | P=32 | 10

9 | P=48 | 15

2 : 3

3 Find the areas of the given triangles and find the scale factor between them.

P, 6, 9, B, 3, C

A, 12, 9, Q, 6, R

Scale factor = $\frac{3}{2}$

9 square units   27 square units
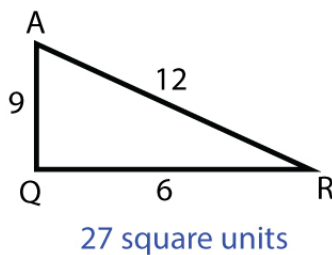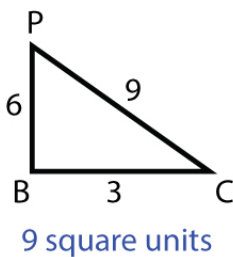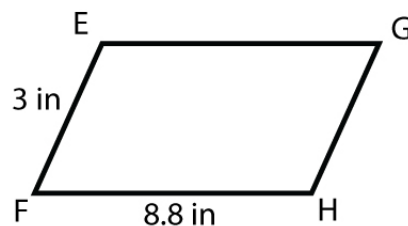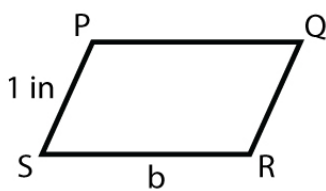
4 Two triangles are similar. The ratio of the corresponding sides of these triangles is 2 : 3. If the altitude of the smaller triangle is 4.5 feet, find the corresponding altitude of the larger triangle.
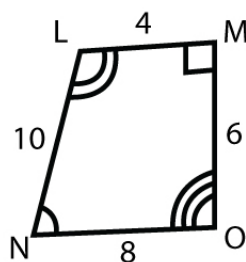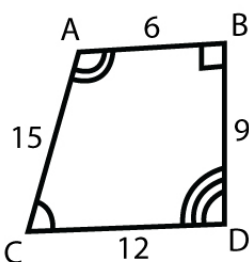
6.75 feet

5 Two parallelograms shown below are similar. Find the perimeter of the parallelogram PQRS.

P, Q, 1 in, S, b, R

E, G, 3 in, F, 8.8 in, H

7.86 in

6 Decide whether the figures given below are similar. If similar, write a similarity statement.

A, 6, B, 15, 9, C, 12, D

L, 4, M, 10, 6, N, 8, O

Yes, ABDC ~ LMON