

Perimeters and Areas of Similar Figures Bell Work

1. Underline the correct word to complete each sentence.

- In similar figures, the ratio of the *areas* / *perimeters* equals the ratio of corresponding sides.
- In similar figures, the ratio of the *areas* / *perimeters* equals the ratio of the squares of corresponding sides.
- The radii of a regular polygon *are* / *are not* congruent.

2. Complete the following statements.

- If two polygons are similar with the lengths of corresponding sides in the ratio of a:b, then the ratio of their perimeters is _____.
- Scale factor is the ratio of the lengths of the _____ of two similar figures.
- The perimeters and areas are related by the _____.

3. Answer with YES or NO.

- Are the corresponding sides of similar figures always proportional?
- Are the corresponding angles of similar figures always congruent?
- Any two regular polygons with the same number of sides are similar.

Multiple Choices

4. The ratio of the lengths of corresponding sides of two similar hexagons is 2: 5. What is the ratio of their areas?

- 4: 25
- 2: 5
- $\sqrt{2}:\sqrt{5}$

5. The ratio of the areas of two similar hexagons is 16: 81. What is the ratio of their perimeters?

- 4: 9
- 4: 3
- 1: 9