

Warm Up

Write down topics you'd like to review before tomorrow's test, or any questions you have about material we've covered throughout this unit.

Unit 3 Review

Topics on the Test

Similar Figures

- Ratio of similarity: The ratio between any pair of corresponding sides in similar figures
- Corresponding sides: Sides in the same position for each figure

Using Ratios of Similarity

- Proportional equations: Equations that compare two or more ratios
- Ratios of perimeters and ratios of areas
- Similarity Statements: Make sure to order the letters so that corresponding angles/sides match up correctly

Conditions for Triangle Similarity

- Angle-Angle Similarity
- Side-Angle-Side Similarity
- Side-Side-Side Similarity

Proving Triangles Similar

- Two-column statement/reason proofs
- Paragraph proofs

Topics on the Test

Proportions in Triangles

- Side-Splitter Theorem: If a line is parallel to one side of a triangle and intersects the other two sides, then it divides those sides proportionally
- Triangle-Angle-Bisector Theorem: If a ray bisects an angle of a triangle, then it divides the opposite side into two segments that are proportional to the other two sides of the triangle.

Similarity in Right Triangles

- Altitude: A line segment through a vertex and perpendicular to the side opposite the vertex
- Geometric Mean: $\frac{a}{x} = \frac{x}{b}$ $x = \sqrt{ab}$
- The length of the altitude to the hypotenuse of a right triangle is the geometric mean of the lengths of the segments of the hypotenuse
- The altitude to the hypotenuse of a right triangle separates the hypotenuse so that the length of each leg of the triangle is the geometric mean of the length of the adjacent hypotenuse segment and the length of the hypotenuse