Exercise Set 4.1: Special Right Triangles and Trigonometric Ratios

Answer the following.

- If two sides of a triangle are congruent, then the _____ opposite those sides are also congruent.
- 2. If two angles of a triangle are congruent, then the _____ opposite those angles are also congruent.
- 3. In any triangle, the sum of the measures of its angles is _____ degrees.
- **4.** In an isosceles right triangle, each acute angle measures _____ degrees.
- 5. Fill in each missing blank with one of the following: smallest, largest

 In any triangle, the longest side is opposite the ____ angle, and the shortest side is opposite the ____ angle.
- 6. Fill in each missing blank with one of the following: 30°, 60°, 90°

 In a 30°-60°-90° triangle, the hypotenuse is opposite the ______ angle, the shorter leg is opposite the _____ angle, and the longer leg is opposite the _____ angle.

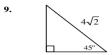
For each of the following,

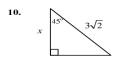
- (a) Use the theorem for 45° - 45° - 90° triangles to find x.
- (b) Use the Pythagorean Theorem to verify the result obtained in part (a).

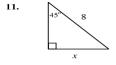




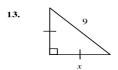
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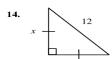


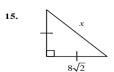












Chapter 4: Trigonometric Functions