

Unit 4: Right Triangle Trigonometry

CONCEPT

Name: _____ Date: _____

Solve each right-triangle problem. Round decimal answers to two places when needed. Use $\text{sqrt}()$ for exact square roots.

1. A right triangle has legs of length 3 and 4. Use the Pythagorean Theorem to find the length of the hypotenuse.

Answer: _____

3. In a right triangle, one leg is 5 and the hypotenuse is 13. Find the length of the other leg.

Answer: _____

5. For a right triangle with angle A, the side opposite A is 6 and the side adjacent to A is 8. Write $\tan(A)$ as a fraction in lowest terms.

Answer: _____

7. In a right triangle, angle A has adjacent side 5 and opposite side 12, with hypotenuse 13. Write $\sin(A)$ as a fraction.

Answer: _____

9. For a right triangle with angle A, the side opposite A is 7 and the side adjacent to A is 7. Write $\tan(A)$ as a whole number.

Answer: _____

2. A right triangle has legs of length 6 and 8. Find the length of the hypotenuse.

Answer: _____

4. In a right triangle, the angle is 30° with opposite side 4 and hypotenuse 8. Write the value of $\sin(30^\circ)$ as a fraction from these sides.

Answer: _____

6. For a right triangle with angle A, the side opposite A is 3 and the hypotenuse is 5. Write $\cos(A)$ as a fraction, given the adjacent side is 4.

Answer: _____

8. In a right triangle, angle A has adjacent side 5 and hypotenuse 13. Write $\cos(A)$ as a fraction.

Answer: _____

10. A right triangle has legs of length 5 and 12. Find the length of the hypotenuse.

Answer: _____

11. In a right triangle, angle A has opposite side 8 and hypotenuse 10. Write $\sin(A)$ as a fraction in lowest terms.

Answer: _____