Lesson 9.6 Practice: The Sine and Cosine Ratios

School Launch · Geometry · Unit 9: Right Triangles and Trigonometry · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. A right triangle has hypotenuse 23 and an acute angle of 56°. Find the side opposite that angle (nearest tenth).

EASY

2. A right triangle has hypotenuse 37 and an acute angle of 48°. Find the side opposite that angle (nearest tenth).

EASY

3. A right triangle has hypotenuse 15 and an acute angle of 18°. Find the side opposite that angle (nearest tenth).

EASY

4. A right triangle has hypotenuse 14 and an acute angle of 60°. Find the side adjacent to that angle (nearest tenth).

MEDIUM

5. A right triangle has hypotenuse 10 and an acute angle of 71°. Find the side opposite that angle (nearest tenth).

MEDIUM

6. A right triangle has hypotenuse 16 and an acute angle of 51°. Find the side opposite that angle (nearest tenth).

MEDIUM

7. A right triangle has hypotenuse 20 and an acute angle of 73°. Find the side opposite that angle (nearest tenth).

MEDIUM

8. A right triangle has legs 5 (opposite $\angle A$) and 16 (adjacent). Find $m\angle A$ to the nearest tenth of a degree.

HARD

9. A right triangle has legs 11 (opposite $\angle A$) and 20 (adjacent). Find $m\angle A$ to the nearest tenth of a degree.

HARD

10. A right triangle has legs 16 (opposite $\angle A$) and 12 (adjacent). Find $m\angle A$ to the nearest tenth of a degree.

HARD