Name _____ Date _____

If you turn this in on time: do the odds.
If you turn this in late or
you are doing it over: do the evens.

Student
score:
How well
do you feel
you understand
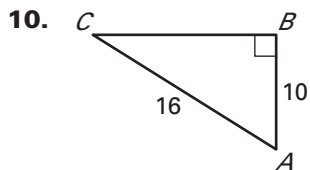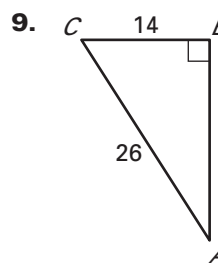this learning
target:

A

B

C

D

F

Teacher
Score:
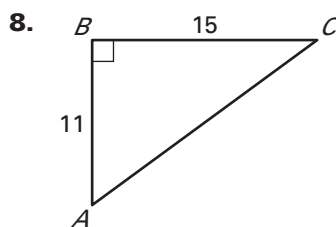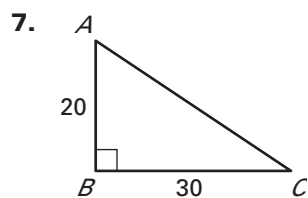
Match the trigonometric expression with the correct ratio. Some ratios may be used more than once, and some may not be used at all.

1. $\sin A$ **2.** $\cos A$ **3.** $\tan A$

4. $\sin B$ **5.** $\cos B$ **6.** $\tan B$

A. $\dfrac{8}{17}$ **B.** $\dfrac{15}{17}$ **C.** $\dfrac{17}{8}$

D. $\dfrac{17}{15}$ **E.** $\dfrac{8}{15}$ **F.** $\dfrac{15}{8}$
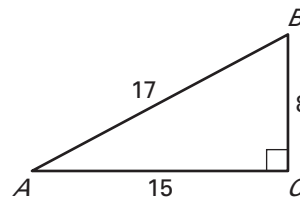
Use a calculator to approximate the measure of $\angle A$ to the nearest tenth of a degree.

7.

8.

9.

10.

11.

12.
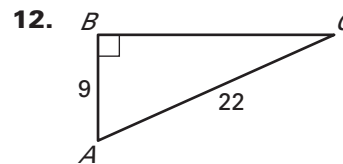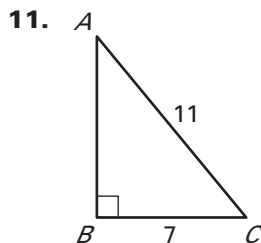
Solve the right triangle. Round decimal answers to the nearest tenth.
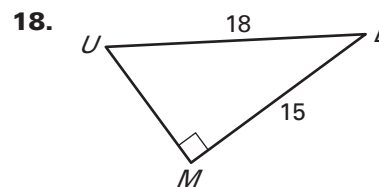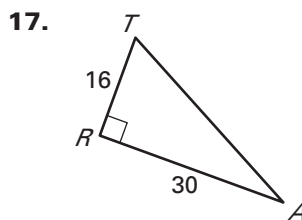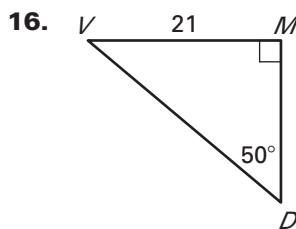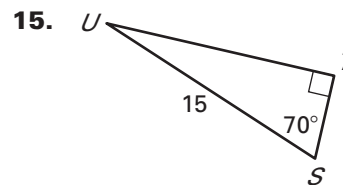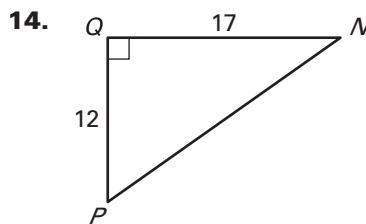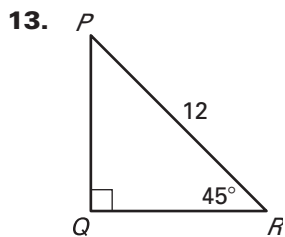
13.

14.

15.

16.

17.

18.

Practice A *continued*

Let ∠*A* be an acute angle in a right triangle. Approximate the measure of ∠*A* to the nearest tenth of a degree.

19. $\sin A = 0.45$ **20.** $\tan A = 0.9$ **21.** $\sin A = 0.76$ **22.** $\cos A = 0.32$

23. $\tan A = 5.2$ **24.** $\cos A = 0.24$ **25.** $\sin A = 0.15$ **26.** $\cos A = 0.66$

27. **Multiple Choice** Using the diagram to the right, for what value of x does $\sin A = \cos A$?

   A. 30°   **B.** 45°

   C. 60°   **D.** none
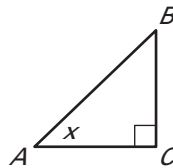
28. **Ladder** You lean a 20 foot ladder against a wall. The base of the ladder is 4 feet from the wall. What angle θ does the ladder make with the ground?
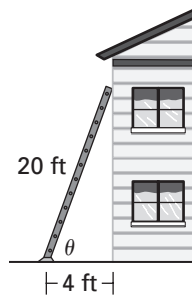
29. **Skyscraper** You are standing 350 feet away from a skyscraper that is 750 feet tall. What is the angle of elevation from you to the top of the building?
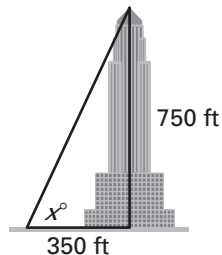
30. **Concert** You attend a music concert with some friends and sit halfway up the bleachers in the arena. The angle of depression from your horizontal line of sight to the stage is 24°. If your seat is 45 feet above stage level, what is your actual distance d from the stage? Round to the nearest foot.