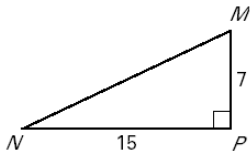Name_____   Date_____

ASSIGNMENT 67 LESSON 7.7 SHOW ALL WORK FOR FULL CREDIT

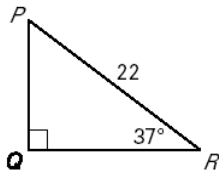**Use the diagram to find the indicated measurement.**
Round your answer to the nearest tenth.
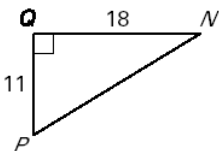 1. *MN*
  2. *m∠M*
  3. *m∠N*

10.

11.

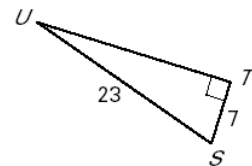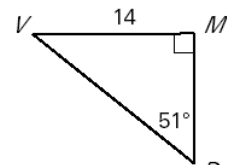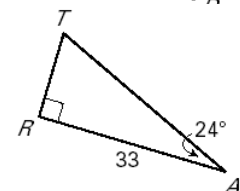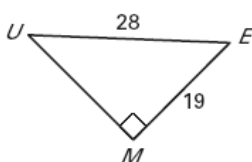**Solve the right triangle. Round decimal answers to the nearest tenth.**
  4.

12.

  5.
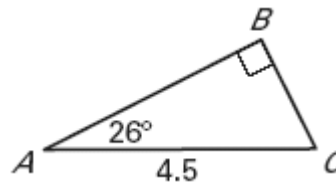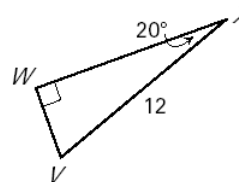
Let ∠A be an acute angle in a right triangle.
Approximate the measure of ∠A to the nearest tenth
of a degree.
  13. $\sin A = 0.36$
  14. $\tan A = 0.8$
  15. $\sin A = 0.27$
  16. $\cos A = 0.35$
  17. $\tan A = 0.42$
  18. $\cos A = 0.11$
  19. $\sin A = 0.94$
  20. $\cos A = 0.77$

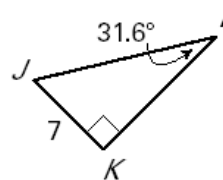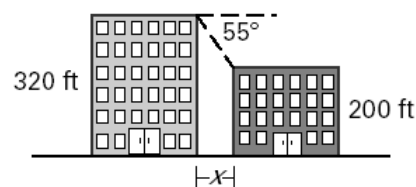 6.

  7.

  21. **Office Buildings** The angle of depression from
      the top of a 320 foot office building to the top of
      a 200 foot office building is 55°. How far apart
      are the buildings?

  8.

  9.

22. Suspension Bridge Use the diagram to find the distance across the suspension bridge.
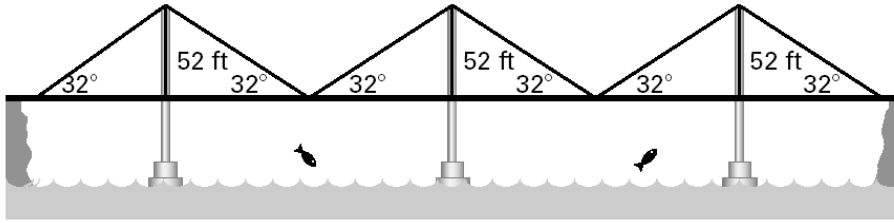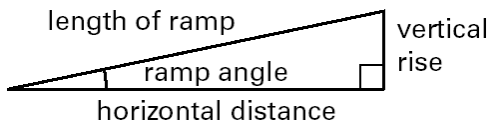

In Exercises 23 and 24, use the following information.
Ramps The Uniform Federal Accessibility Standards specify that the ramp angle used for a wheelchair ramp must be less than or equal to 4.78°.

23. The length of one ramp is 16 feet. The vertical rise is 14 inches. Estimate the ramp's horizontal distance and its ramp angle. Does this ramp meet the Uniform Federal Accessibility Standards?

24. You want to build a ramp with a vertical rise of 6 inches. You want to minimize the horizontal distance taken up by the ramp. Draw a sketch showing the approximate dimensions of your ramp.