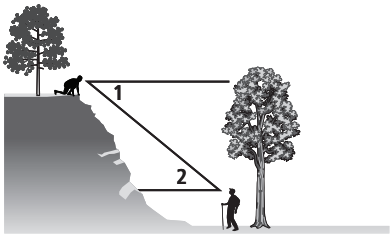
Name

# 10-2B Lesson Master

**Questions on SPUR Objectives**
See Student Edition pages 724–727 for objectives.

## VOCABULARY

**In 1 and 2, refer to the diagram at the right.**




1. **Fill in the Blanks** Write the appropriate phrase.
   a. $\angle 1$ is an angle of _____.
   b. $\angle 2$ is an angle of _____.
   c. $\angle 1$ and $\angle 2$ are called _____.
2. How are the measures of $\angle 1$ and $\angle 2$ related? _____

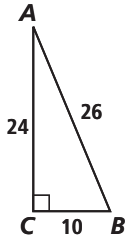
## SKILLS Objective B

**In 3–14, approximate the angle $\theta$ between 0° and 90° to the nearest degree.**

3. $\sin \theta = 0.966$ _____
4. $\cos \theta = 0.385$ _____
5. $\tan \theta = 0.067$ _____
6. $\sin \theta = 0.866$ _____
7. $\cos \theta = 0.951$ _____
8. $\tan \theta = 9.5$ _____
9. $\sin \theta = 0.423$ _____
10. $\cos \theta = 0.5$ _____
11. $\tan \theta = 3.078$ _____
12. $\sin \theta = 0.292$ _____
13. $\cos \theta = 0.707$ _____
14. $\tan \theta = 0.877$ _____

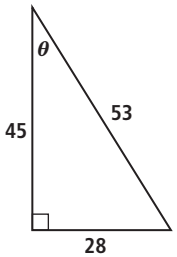
**In 15 and 16, refer to the diagram below. Find the measure to the nearest degree.**

15. $m\angle A$ _____
16. $m\angle B$ _____

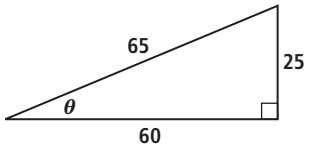



**In 17 and 18, use the triangle below each question and find the measure of $\theta$ to the nearest degree.**

17. _____




18. _____



Name

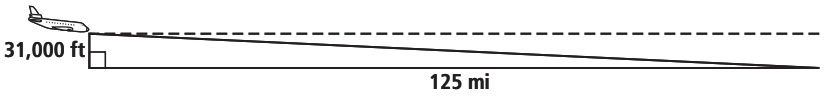
**10-2B** page 2

## USES Objective G

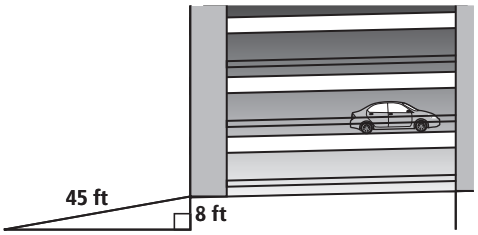
**In 19–24, round the angle measure to the nearest tenth of a degree.**

19. A ramp is to be built up to a doorway. Its slope is to be $\frac{1}{13}$. What angle will the ramp make with the horizontal?

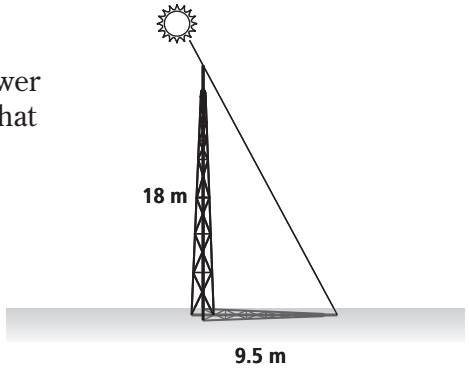
20. As shown below, a plane flying at 31,000 ft begins its descent 125 mi from the airport. If the angle of depression is constant, find its measure.




21. Refer to the diagram at the right. A garage is 8 ft above the level street. The driveway from the street to the garage is 45 ft long. Find the driveway's angle of incline.




22. Refer to the diagram at the right. If a tower 18 m high casts a shadow 9.5 m long, what is the angle of elevation of the sun?




23. As shown at the right, the base of a 24-ft ladder is placed 8 ft from a building.

    a. What angle does the ladder make with the level ground?

    b. How high above the ground is the top of the ladder?