

Name _____

10-2A Lesson Master

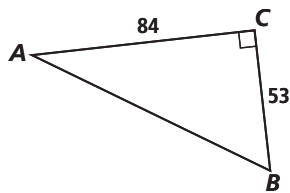
Questions on SPUR Objectives
See Student Edition pages 724–727 for objectives.

SKILLS Objective B

In 1–3, approximate the angle θ between 0° and 90° to the nearest degree.

1. $\sin \theta = 0.407$ _____
2. $\cos \theta = 0.987$ _____
3. $\tan \theta = 2.000$ _____
4. Find $m\angle A$ in the figure below to the nearest degree.

$m\angle A =$ _____



5. Find the measures to the nearest degree of the acute angles in a right triangle with one leg 12 cm long and hypotenuse 14 cm long. _____

USES Objective G

6. The base of a 24-ft extension ladder is 5 ft from a house. What angle does the ladder make with the ground? Round to the nearest degree. _____

In 7–9, recall the fact that 1 mile = 5280 feet.

7. The Sears Tower in Chicago is the tallest building in the United States at a height of 1450 ft. If you are standing a mile away from the Sears Tower, at what angle must you look up to see the top? Round to the nearest degree. _____
8. The Katoomba Scenic Railway in the Blue Mountains of Australia is the steepest railway incline in the world. The track is 415 m long and rises 178 m. What is the track's average angle of elevation? Round to the nearest degree. _____
9. In 2005, adventurer Steve Fossett flew around the world solo without stopping or refueling his plane, the Global Flyer. He flew at an altitude of 45,000 ft and started his descent for landing when he was about 300 mi from the Salina, Kansas, airport, from which he had taken off approximately 67 hours earlier. At what angle did he descend? Round your answer to the nearest tenth of a degree. _____