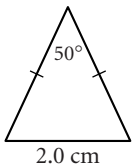


Lesson 12.2 • Problem Solving with Right Triangles

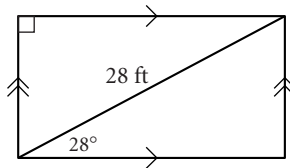
Name _____ Period _____ Date _____

For Exercises 1–3, find the area of each figure to the nearest square unit.

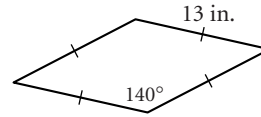
1. Area \approx _____



2. Area \approx _____



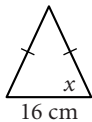
3. Area \approx _____



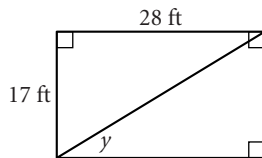
For Exercises 4–9, find each unknown to the nearest tenth of a unit.

4. Area = 88 cm²

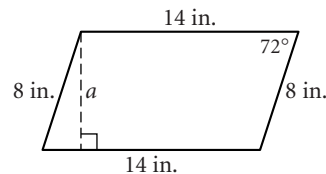
$x \approx$ _____



5. $y \approx$ _____

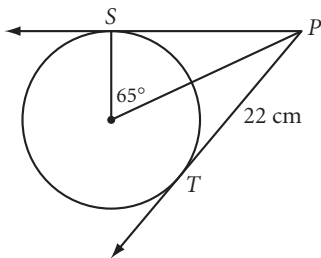


6. $a \approx$ _____



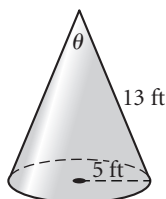
7. \overrightarrow{PS} and \overrightarrow{PT} are tangents.

Diameter \approx _____



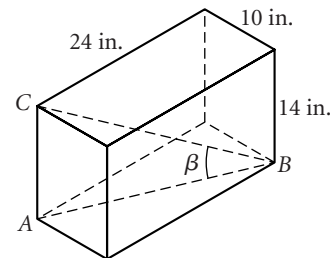
8. Right cone

$\theta \approx$ _____



9. Right rectangular prism

$m\angle ABC = \beta \approx$ _____



In Exercises 10–12, give each answer to the nearest tenth of a unit.

10. A ladder 7 m long stands on level ground and makes a 73° angle with the ground as it rests against a wall. How far from the wall is the base of the ladder?

11. To see the top of a building 1000 feet away, you look up 24° from the horizontal. What is the height of the building?

12. A guy wire is anchored 12 feet from the base of a pole. The wire makes a 58° angle with the ground. How long is the wire?