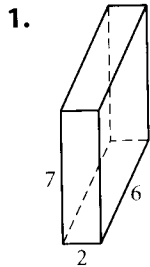


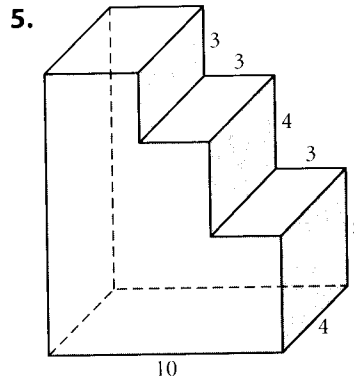
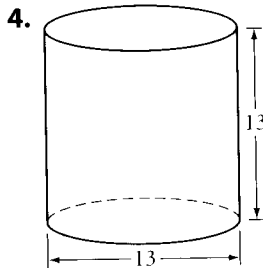
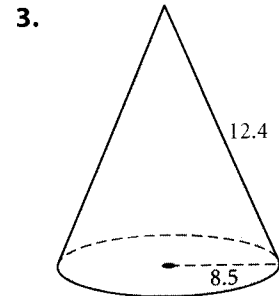
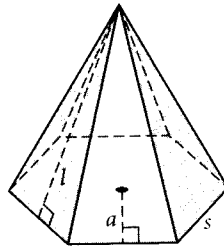
Lesson 8.7 • Surface Area

Name _____ Period _____ Date _____

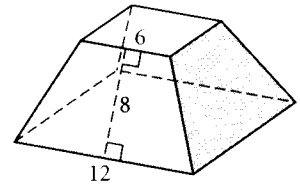
In Exercises 1–7, find the surface area of each solid. All quadrilaterals are rectangles, and all measurements are in centimeters. Round your answers to the nearest 0.1 cm².



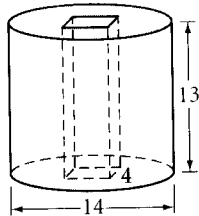
2. Base is a regular hexagon.
 $s = 6$, $a \approx 5.2$, and $l = 9$.



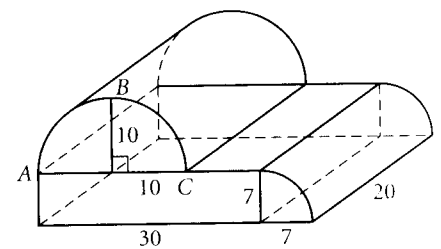
6. Both bases are squares.



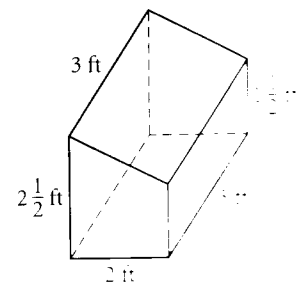
7. A square hole in a round peg



8. In order to calculate the heat loss of this restaurant, Kevin needs to find the area of the surface that is exposed to the air. \overline{ABC} is a semicircle. All measurements are in feet. Round your answer to the nearest 0.1 ft².



9. Ilsa is building a museum display case. The sides and bottom will be plywood and the top will be glass. Plywood comes in 4-ft-by-8-ft sheets. How many sheets of plywood will she need to buy? Explain. Sketch a cutting pattern that will leave her with the largest single piece possible.

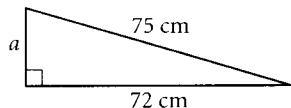


Lesson 9.1 • The Theorem of Pythagoras

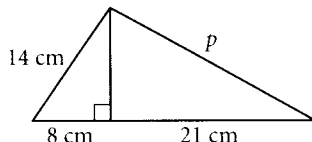
Name _____ Period _____ Date _____

Give all answers rounded to the nearest 0.1 unit.

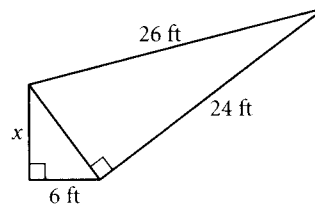
1. $a =$ _____



2. $p =$ _____

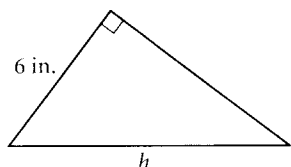


3. $x =$ _____

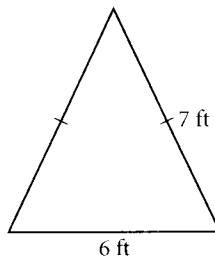


4. Area = 39 in.^2

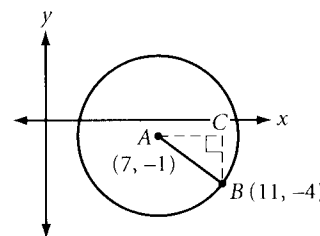
$h =$ _____



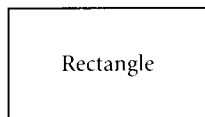
5. Find the area.



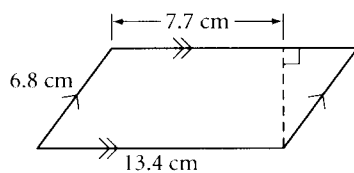
6. Find the coordinates of C and the radius of the circle.



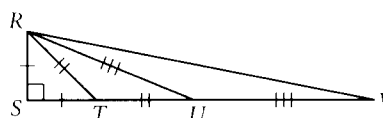
7. Find the length of the diagonal. $P = 68 \text{ cm}$ and $A = 144 \text{ cm}^2$.



8. Find the area.

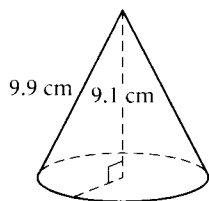


9. $RS = 3 \text{ cm}$. Find RV .

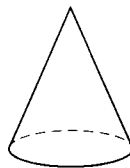


10. A regular decagon is inscribed in a circle with radius 6.7 cm. It has side length 4.14 cm. Find the length of the apothem.

11. Surface area = _____



12. Base area = $16\pi \text{ cm}^2$ and slant height = 3 cm. What's wrong with this picture?



13. Given $\triangle PQR$, with $m\angle P = 90^\circ$, $PQ = 20 \text{ in.}$, and $PR = 15 \text{ in.}$, find the area of $\triangle PQR$, the length of the hypotenuse, and the altitude to the hypotenuse.

14. Find the height of an equilateral triangular pyramid with side length 2 cm.

15. Find the length of the space diagonal of a box with dimensions 40 cm by 55 cm by 32 cm.