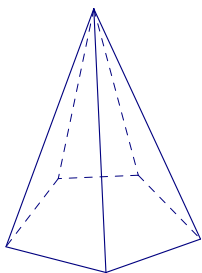


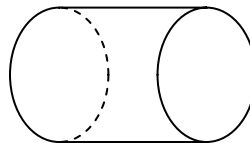
Post-Test Measurement

- $2.32 \text{ m} \times 4.51 \text{ m} = 10.4632 \text{ m}^2$ (m is the abbreviation for meters).
 - Round this result to the nearest hundredth of a meter.
 - Round this result to the nearest tenth of a meter.
- The height of a building was reported to be 252 m.
 - What is the absolute error in this measurement?
 - What is the relative error in this measurement?
- Convert 250 millimeters to meters.
 - Convert 82 meters to kilometers.
- Convert 3.2 yards to inches.
 - Convert 0.25 miles to yards.
- Convert 2 yards to meters. [Recall 1 in = 2.54 cm.]
- Draw a hexagonal pyramid. Then state the number of faces (including the base), edges, lateral faces, lateral edges, and vertices.
- For each of the solids below, sketch two cross sections. One cross section should be parallel to a base, and the other perpendicular to a base. Then identify each of the cross sections with a name (regular pentagon, triangle, rectangle, circle, etc.)

a.

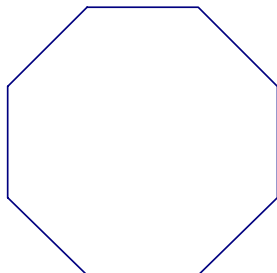


b.



- Sketch a solid that could have the given cross sections.

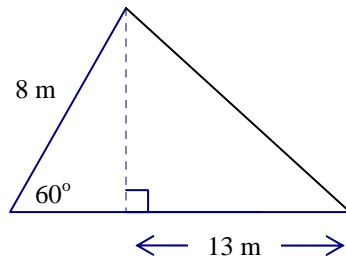
Cross section parallel to a base:



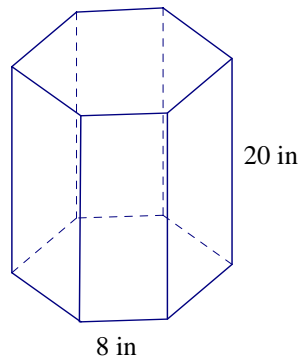
Cross section perpendicular to a base:



9. Find the area of an equilateral triangle with side length 6 in.
10. If a rectangle has width $(x+3)$ ft, length $(x+7)$ ft, and perimeter 104 ft,
- Find the width.
 - Find the length.
11. If a rectangle has width $(x-2)$ ft, length $(x+6)$ ft, and area 9 ft^2 ,
- Find the width.
 - Find the length.
12. If a trapezoid has area 28 in^2 and bases 8 in and 12 in, find the height.
13. Find the area of the following triangle:

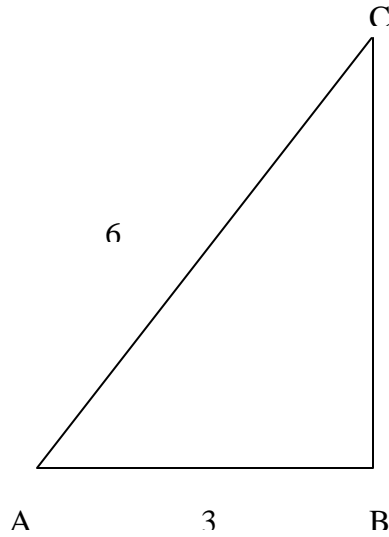


14. The following figure is a regular right prism. Find the volume, the lateral area and the total surface area.



15. A rectangular prism with a square base has a height of 7 m and a volume of 175 m^3 .
- Find the dimensions of the square base.
 - Find the lateral surface area.
 - Find the total surface area.
16. A cube has a total surface area of 96 m^2 . Find the length of an edge.
17. A right circular cylinder has a height of 5 in and a volume of $245\pi\text{ in}^3$.
- Find the radius.
 - Find the lateral area.
 - Find the total surface area.

18. A right circular cone has a diameter of 18 in and a volume of 108π in³.
- Find the height.
 - Find the slant height.
 - Find the total surface area.
19. Find the indicated trigonometric ratios for the triangle below. Write all answers in simplest radical form.



- | | | |
|--------------|--------------|--------------|
| a. $\sin(A)$ | b. $\csc(C)$ | c. $\tan(C)$ |
| d. $\cot(A)$ | e. $\cos(A)$ | f. $\sec(C)$ |

20. A girl is flying a kite and lets out 250 feet of string. If she sights the kite at a 60° angle of elevation, what is the height of the kite? (disregard the height of the girl in your calculations; do not evaluate radicals)