

PYRAMIDS & CONES

Pyramid Definitions:

Vertex:

Base:

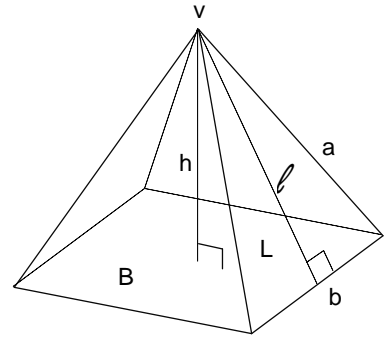
Lateral face:

Lateral edge:

Base edge:

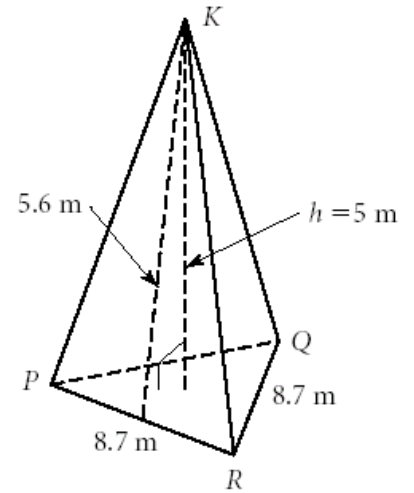
Altitude:

Slant height:



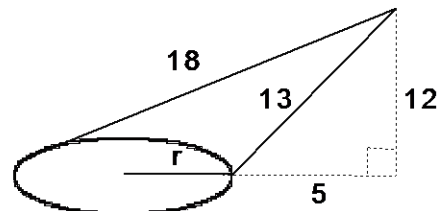
Volume of a Pyramid

1. Find the volume of the pyramid. Angle R is a right angle.

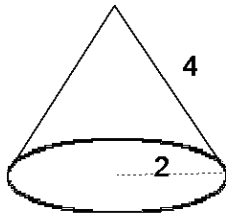


Volume of a Cone

2. Find the radius of the cone with volume 16π .



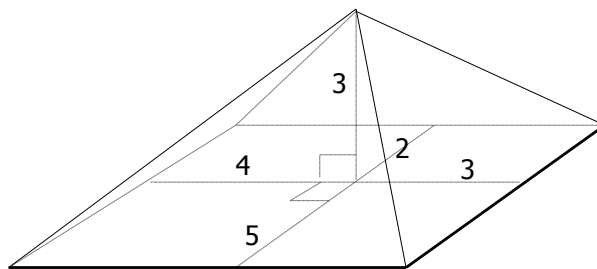
3. Draw the net of the given right circular cone with radius 2 and slant height of 4. Now calculate the surface area.



Surface Area of a Right Circular Cone:

4. Find the surface area of a right cone whose base area is $25\pi \text{ cm}^2$ and whose height is 12cm.

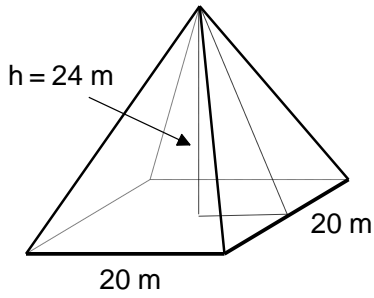
5. Find the volume and surface area for the oblique pyramid.



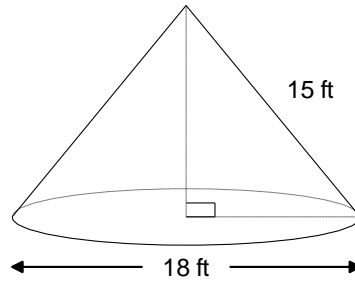
Pyramids and Cones

A. Determine the volume of the pyramids or cones.

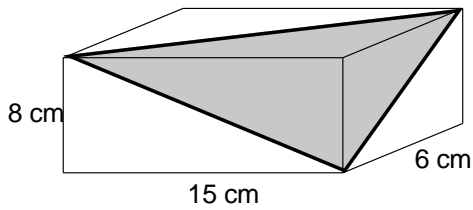
1. The base of the pyramid is square.



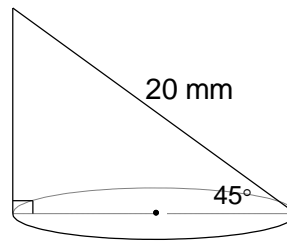
2. The base has an 18 foot diameter.



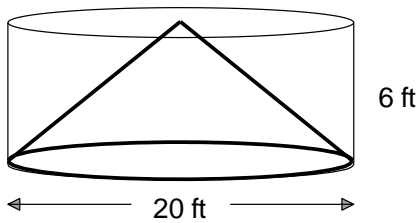
3. A pyramid lies in a rectangular prism.



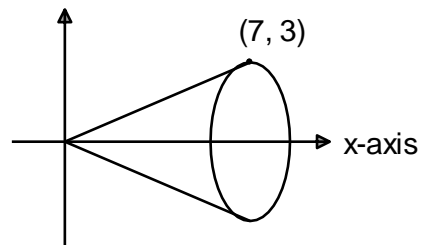
4. The cone is slanted at 45 degrees.



5. A cone lies in a cylinder.

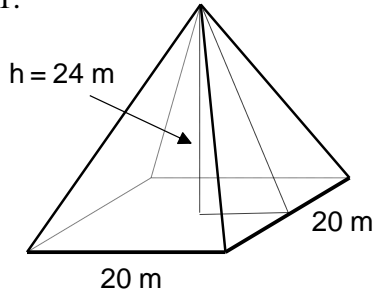


6. The point $(7, 3)$ is rotated around x-axis.

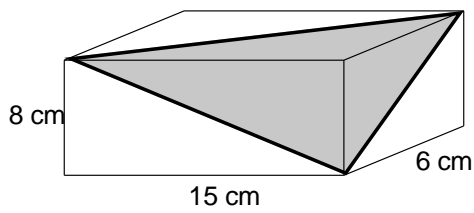


B. Flatten out the pyramid and find the total surface area.

1.



2.



C. Water is pouring into a conical tank at the rate of 0.8 m^3 per minute.

- a. To the nearest minute, determine how long will it take to fill the tank.
- b. To the nearest minute, how long will it take to fill half the tank.

