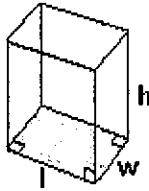
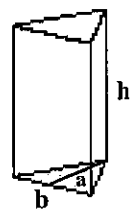
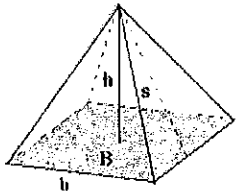
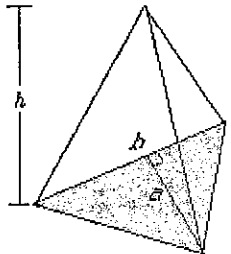
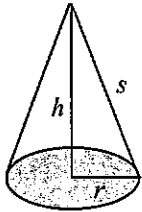
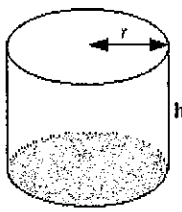
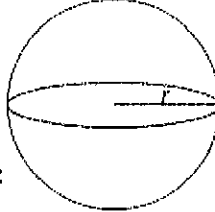




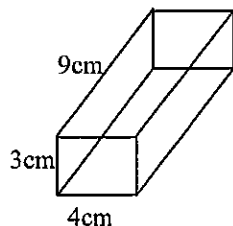
**Volume, Surface Area:**

<p><b>General Prism:</b>  <i>B = area of base, P = perimeter of the base, h = height</i></p>		<p>Volume: <math>V = Bh</math>                  Surface Area: <math>SA = 2B + Ph</math></p>
<p><b>Rectangular Prism</b></p> <p>Volume:  <math>V = l \cdot w \cdot h</math></p> <p>Surface Area:  <math>SA = 2lw + 2(l + w)h</math></p> 	<p><b>Rectangular Prism</b></p> <p>Volume:  <math>V = \frac{1}{2}bah</math></p> <p>Surface Area:  <math>SA = bah + Ph</math></p> 	
<p><b>General Pyramid:</b> <i>B = area of base, b = side length</i>  <i>s = slant height, h = height, n = no. of sides</i></p>		<p>Volume: <math>V = (1/3)Bh</math>                  Surface Area: <math>SA = B + n(1/2)sb</math></p>
<p><b>Square Pyramid</b></p> <p>Volume:  <math>V = (1/3)b^2h</math></p> <p>Surface Area:  <math>SA = b^2 + 2bl</math></p> 	<p><b>Triangular Pyramid</b></p> <p>Volume:  <math>V = (1/6)abh</math></p> <p>Surface Area:  <math>SA = (1/2)ab + (3/2)sb</math></p> 	
<p><b>Cone</b></p> <p>Volume:  <math>V = \frac{1}{3}\pi r^2h</math></p> <p>Surface Area:  <math>SA = \pi rs + \pi r^2</math></p> 	<p><b>Cylinder</b></p> <p>Volume:  <math>V = \pi r^2h</math></p> <p>Surface Area:  <math>SA = 2\pi r^2 + 2\pi rh</math></p> 	<p><b>Sphere:</b></p> <p>Volume:  <math>V = \frac{4}{3}\pi r^3</math></p> <p>Surface Area:  <math>SA = 4\pi r^2</math></p> 

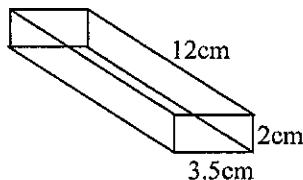
**Practice Problems:**

1. Find the volume of each of these rectangular prisms:

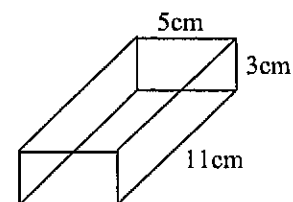
a.



b.



c.

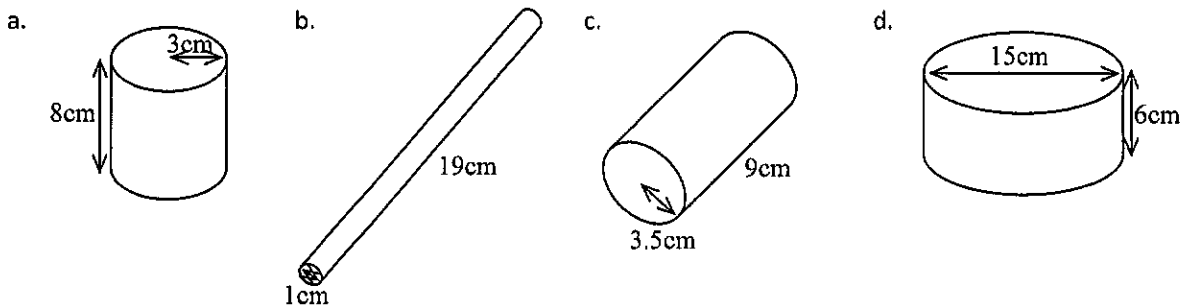


2. Give the volume and surface area of the boxes with these dimensions:

a. length = 6 cm, width = 3 cm and height = 4 cm.

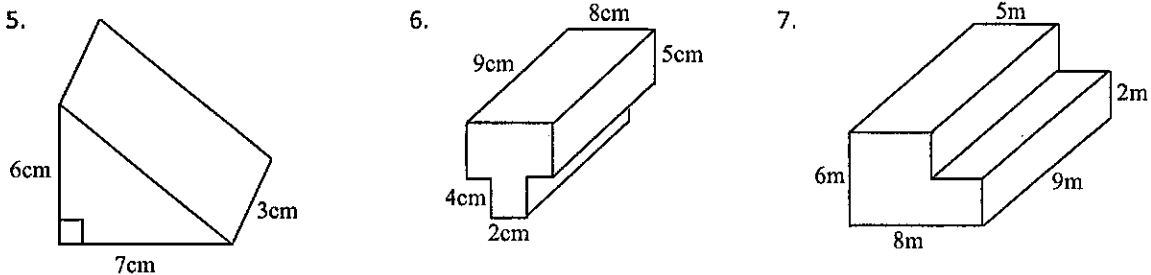
b. width = 12 cm, length = 6 cm, height = 2.25 cm.

3. Find the volume of each of these cylinders:

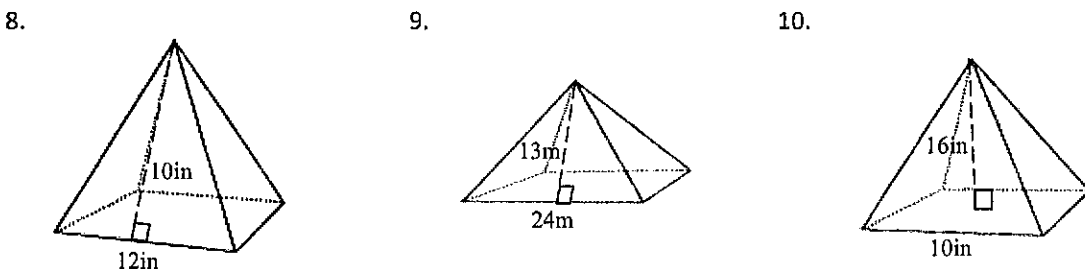


4. What is the radius of a cylinder 7 cm long and with a volume  $200 \text{ cm}^3$ ?

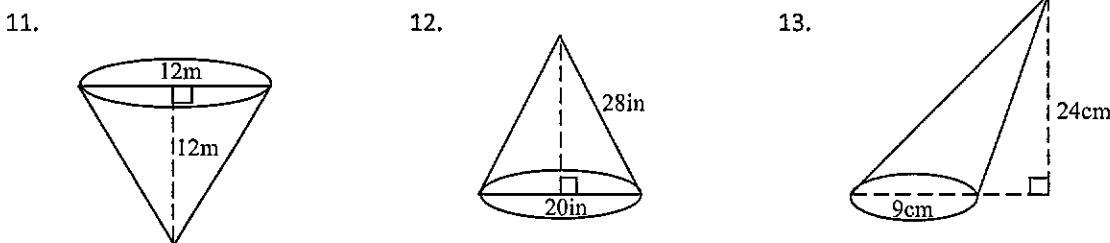
Calculate the volume of the following prisms:



Find the volume of each square pyramid:



Find the volume of each cone:



Find the surface area and the volume of the sphere:

