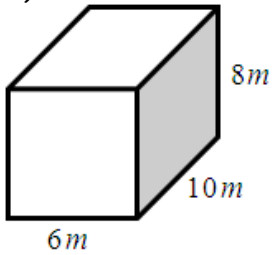
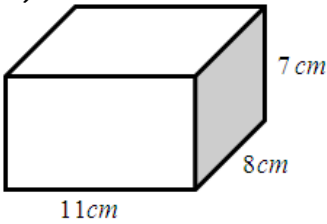
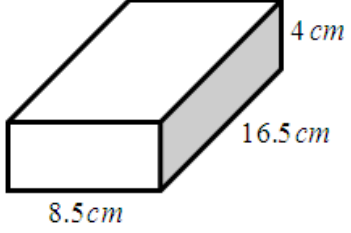
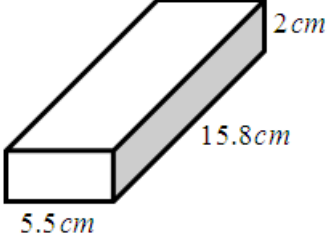


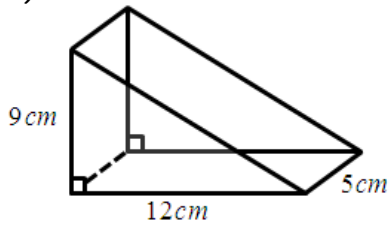
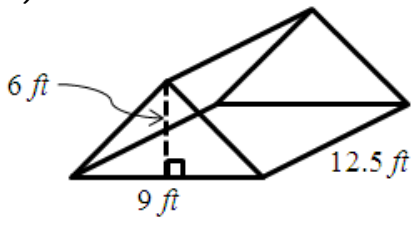
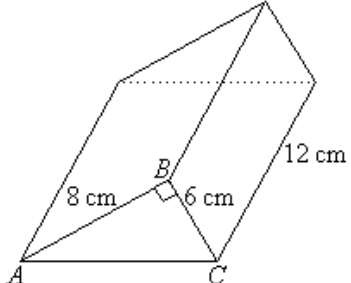
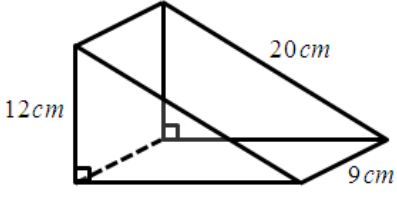
**Math 8**

**Chapter 7 Review**

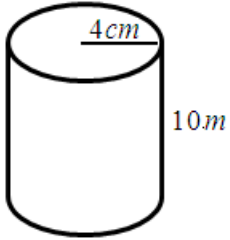
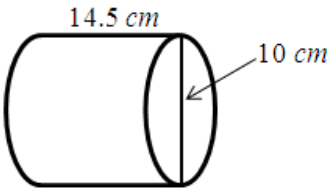
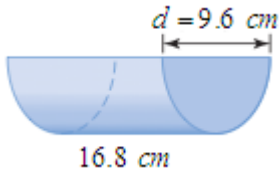
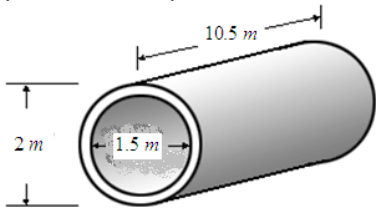
1. Determine the volume.

<p>a)</p>  <p>A 3D diagram of a rectangular prism. The front bottom edge is labeled <math>6m</math>, the right bottom edge is labeled <math>10m</math>, and the right vertical edge is labeled <math>8m</math>.</p>	<p>b)</p>  <p>A 3D diagram of a rectangular prism. The front bottom edge is labeled <math>11cm</math>, the right bottom edge is labeled <math>8cm</math>, and the right vertical edge is labeled <math>7cm</math>.</p>
<p>c)</p>  <p>A 3D diagram of a rectangular prism. The front bottom edge is labeled <math>8.5cm</math>, the right bottom edge is labeled <math>16.5cm</math>, and the right vertical edge is labeled <math>4cm</math>.</p>	<p>d)</p>  <p>A 3D diagram of a rectangular prism. The front bottom edge is labeled <math>5.5cm</math>, the right bottom edge is labeled <math>15.8cm</math>, and the right vertical edge is labeled <math>2cm</math>.</p>

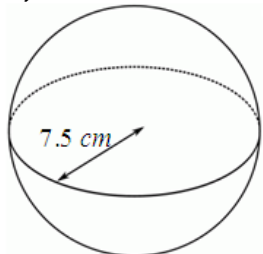
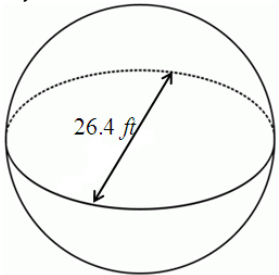
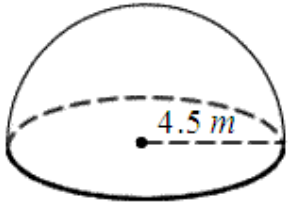
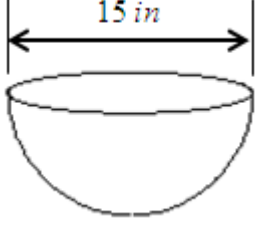
2. Determine the volume.

<p>a)</p>  <p>A 3D diagram of a right triangular prism. The base is a right triangle with a horizontal leg of <math>12cm</math> and a vertical leg of <math>9cm</math>. The length of the prism is <math>5cm</math>. A right angle symbol is shown at the bottom-left corner of the base.</p>	<p>b)</p>  <p>A 3D diagram of a triangular prism. The base is a triangle with a horizontal base of <math>9ft</math> and a vertical height of <math>6ft</math>. The length of the prism is <math>12.5ft</math>. A right angle symbol is shown at the bottom-left corner of the base.</p>
<p>c)</p>  <p>A 3D diagram of a triangular prism. The base is a right triangle with legs of <math>8cm</math> and <math>6cm</math>. The length of the prism is <math>12cm</math>. A right angle symbol is shown at vertex <math>B</math>. Vertices <math>A</math> and <math>C</math> are labeled at the ends of the legs.</p>	<p>d)</p>  <p>A 3D diagram of a right triangular prism. The base is a right triangle with a horizontal leg of <math>9cm</math> and a vertical leg of <math>12cm</math>. The length of the prism is <math>20cm</math>. A right angle symbol is shown at the bottom-left corner of the base.</p>

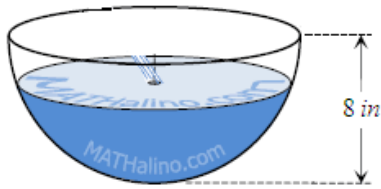
3. Determine the volume.

<p>a)</p> 	<p>b)</p> 
<p>c)</p> 	<p>d) Culvert (shaded volume)</p> 

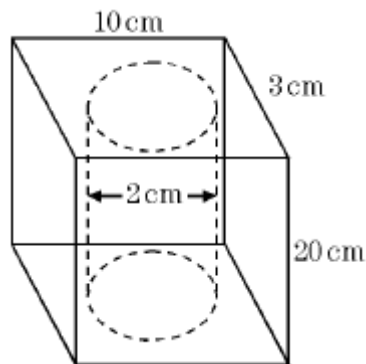
4. Determine the volume.

<p>a)</p> 	<p>b)</p> 
<p>c)</p> 	<p>d)</p> 

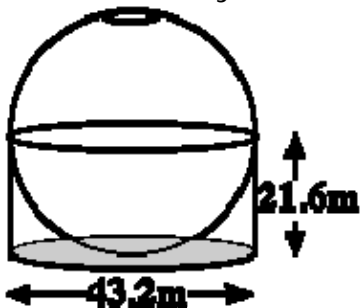
5. A 8 inch spherical bowl has juice that is  $\frac{2}{3}$  full. What's the volume of the juice?



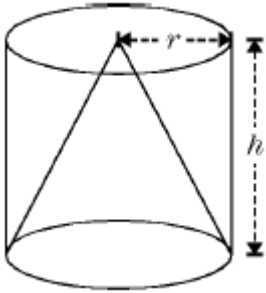
6. A cylinder is cut from rectangular prism as shown. What is the volume of the remaining rectangular prism?



7. Half a sphere is inside a cylinder as shown. What is the remaining volume inside the cylinder that is not occupied by the sphere?

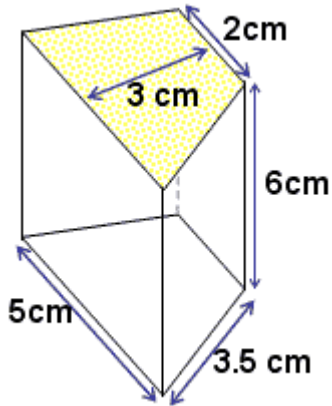


8. A cone with radius  $r = 5$  cm and height  $h = 10$  cm just fits inside a cylinder with the same radius and height. What is the volume in the cylinder that is not occupied by the cone?



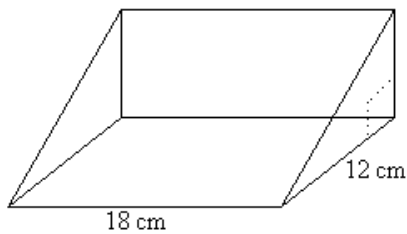
9. A prism has volume of  $4576 \text{ cm}^3$  and a base area of  $352 \text{ cm}^2$ , find the height of the prism.
10. A rectangular pool has a volume  $1620 \text{ m}^3$ , the width measures 9 m and the length is 15 m. How deep is it?
11. A cylindrical volume is  $5664.7 \text{ cm}^3$  and it has a base area  $306.2 \text{ cm}^2$ . Determine the height of the cylinder.

12. Find the volume of the trapezoidal prism.



13. A square base rectangular box can hold  $3197.4 \text{ cm}^3$  of material with the height measuring 15 cm. Find length of the sides of the base.

14. The volume of the triangular prism shown below is  $972 \text{ cm}^3$ . Determine the height of the triangle.



15. Six Toblerone chocolate bars are put together to form a hexagonal prism. The dimensions of a single bar are given below. Determine the volume of a box of six.



16. A side of an equilateral triangular sandbox measures 3 ft in length and 2 ft deep. If the box is 90% filled with sand, then what is the volume of sand?



17. If the surface area of a cube is  $150\text{cm}^2$ , then determine the volume of the cube.

18. If the surface area of a cylinder is  $338\pi\text{cm}^2$  with a radius of 6.5 cm, then find the volume of the cylinder.

19. If the surface area of a sphere is  $334\pi\text{cm}^2$ , then determine the volume of the sphere.