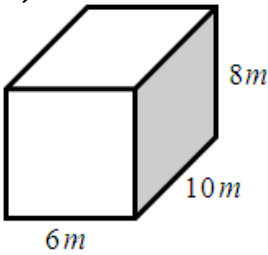
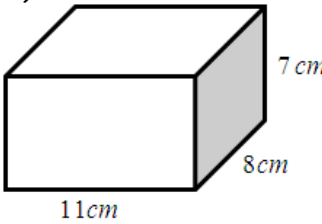
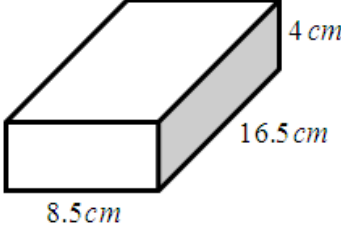
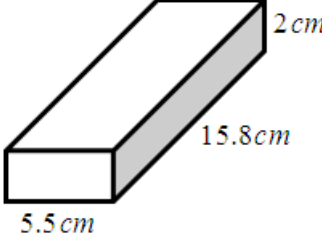


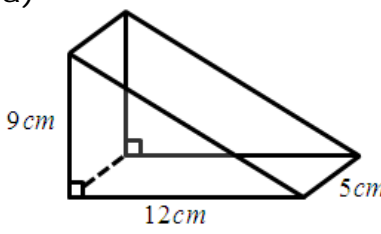
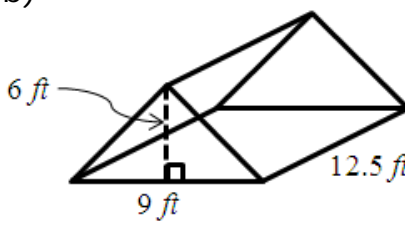
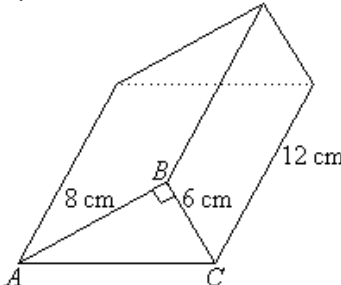
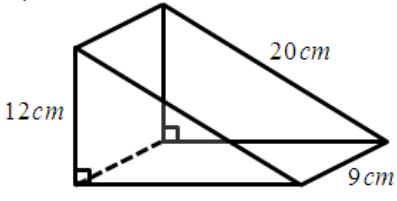
Math 8

Chapter 7 Review

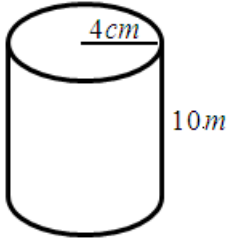
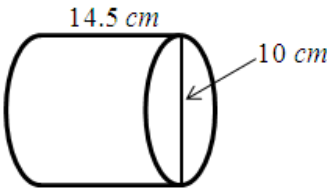
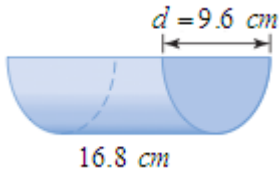
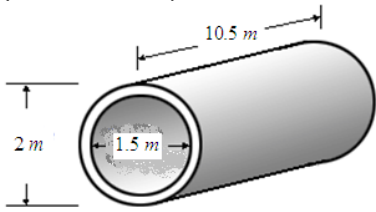
1. Determine the volume.

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

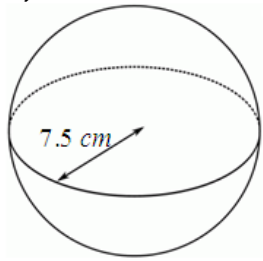
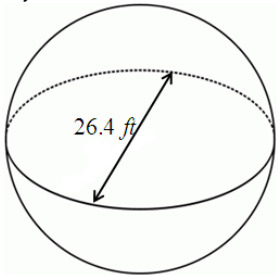
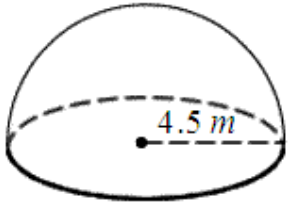
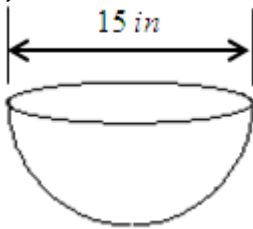
2. Determine the volume.

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

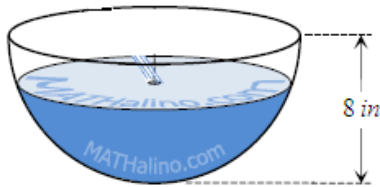
3. Determine the volume.

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

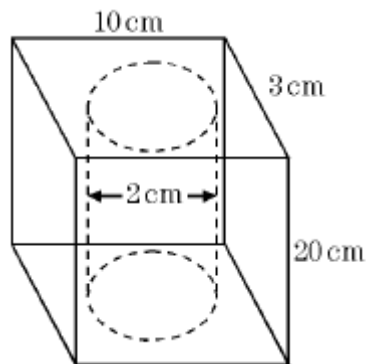
4. Determine the volume.

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

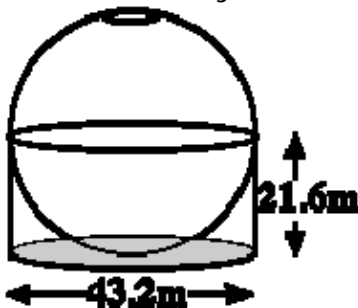
5. A 8 inch spherical bowl has juice that is $\frac{2}{3}$ full. What's the volume of the juice?



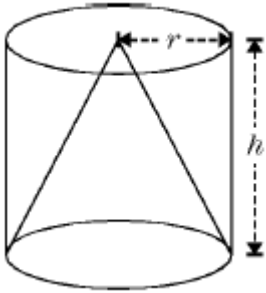
6. A cylinder is cut from rectangular prism as shown. What is the volume of the remaining rectangular prism?



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?

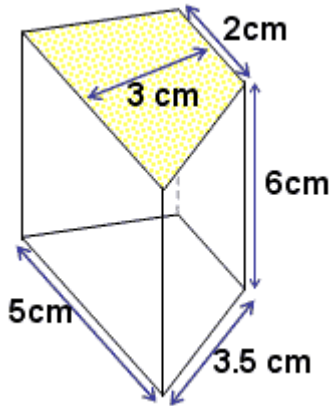


8. A cone with radius $r = 5$ cm and height $h = 10$ cm just fits inside a cylinder with the same radius and height. What is the volume in the cylinder that is not occupied by the cone?



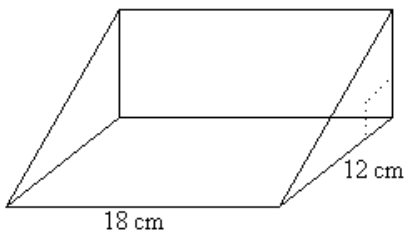
9. A prism has volume of 4576 cm^3 and a base area of 352 cm^2 , find the height of the prism.
10. A rectangular pool has a volume 1620 m^3 , the width measures 9 m and the length is 15 m. How deep is it?
11. A cylindrical volume is 5664.7 cm^3 and it has a base area 306.2 cm^2 . Determine the height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

12. Find the volume of the trapezoidal prism.



13. A square base rectangular box can hold 3197.4 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 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 150cm^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.