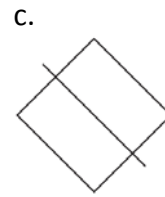
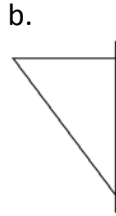
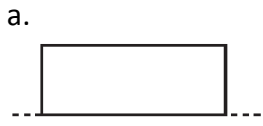
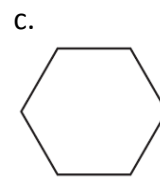
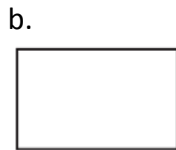
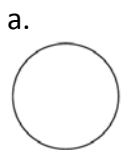


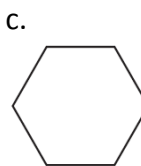
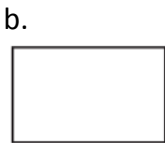
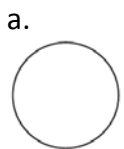
1. Determine the 3D solid that is formed by rotating the 2D figure around the given axis. Sketch the 3D figure.



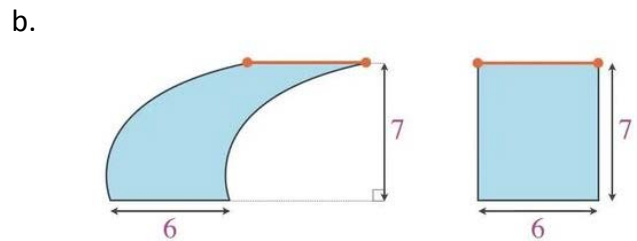
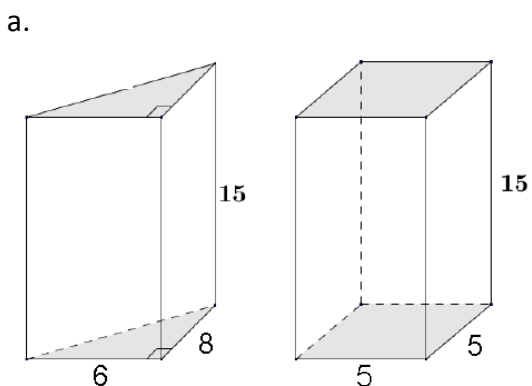
2. Determine the 3D solid that is formed by stacking congruent copies of the 2D figure. Sketch the figure.



3. A 3D solid is formed by stacking smaller and smaller copies of the 2D figure. Name the 3D solid that is formed. Sketch the figure.



4. For each pair of solids, determine if the conditions for Cavalieri's Principle have been met to justify that the figures have the same area or volume. If the conditions have not been met, explain why not.



5. A rectangular prism has a base with a length of 25, a width of 9, and a height of 12. A second prism has a square base with a side of 15. If the volumes of the two prisms are equal, what is the height of the second prism?

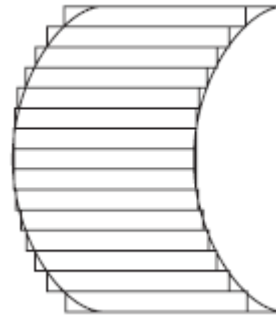
6. Two prisms have equal heights and equal volumes. The base of one is a pentagon and the base of the other is a square. If the area of the pentagonal base is 36 square inches, how many inches are in the length of each side of the square base?

7. Estimate the approximate area or volume of each irregular or oblique figure. Round your answers to the nearest tenth, if necessary.

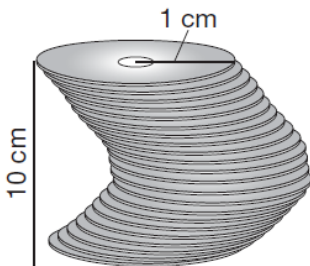
a. The height of each rectangle is 10 feet and the base of each rectangle is 1.5 yards.



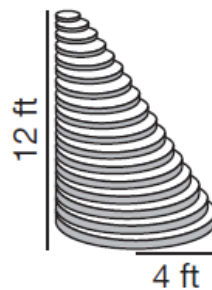
b. The height of each rectangle is 6 mm and the base of each rectangle is 2 cm.



c.



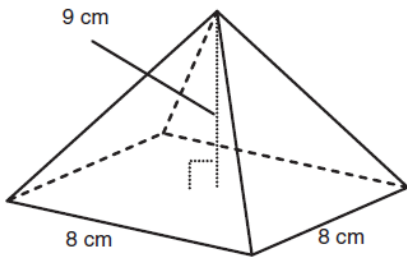
d.



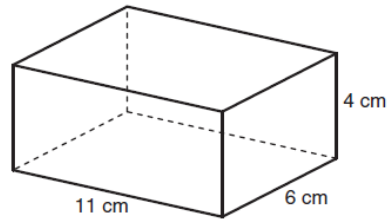
Mixed Review:

8. Find the volume of each solid to the nearest tenth.

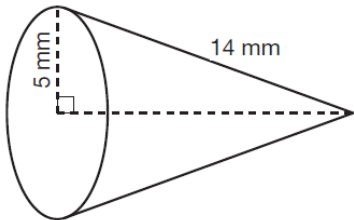
a.



b.

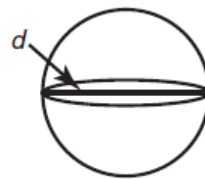


c.

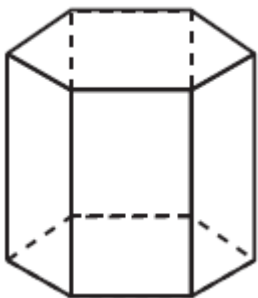


d.

$d = 16$ meters



9. Pictured is a regular hexagonal prism.



a. Name the shape of the cross section, if the cross section is made *parallel* to the base.

b. Name the shape of the cross section, if the cross section is made *perpendicular* to the base.