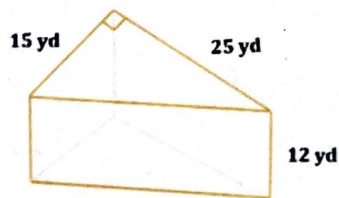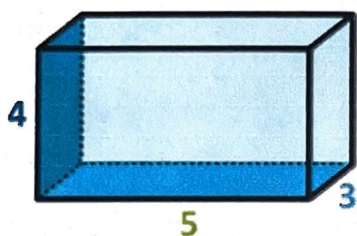7) Find the volume of a right triangular prism given the measures in the diagram.

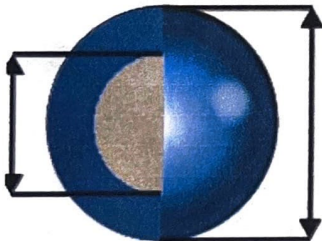15 yd 25 yd

12 yd

$$\frac{1}{2}(15)(25)(12) = 2250 \text{ yd}^3$$

8) Find the volume of the rectangular prism below.

4

5

3

$$4(5)(3) = 60$$

9) A manufacturer is designing a new type of bowling ball. The bowling ball will have a weighted spherical core and a lighter outer layer of plastic around the core.

The diameter of the entire bowling ball is 8.6 inches. The diameter of the weighted core is 5.66 inches. What is the volume of plastic the manufacturer will need to create the outer layer of the bowling ball?

$$\frac{4}{3}\pi\left(\frac{8.6}{2}\right)^3 - \frac{4}{3}\pi\left(\frac{5.66}{2}\right)^3 = 238.1 \text{ in}^3$$

10) Danny is building a pyramid modeled after one of the Great Pyramids of Giza in Egypt. The Great Pyramid has a height of 264 feet and a square base with a side measuring 372 feet. If Danny builds the pyramid to one-eightieth the size, what will the volume be for his pyramid? (Round all numbers to the nearest tenth.)

$$\frac{1}{3}\left(\frac{1}{8}(264)\right)\left(\frac{1}{8}(264)\right)\left(\frac{1}{8}(372)\right) = 16879.5 \text{ ft}^3$$