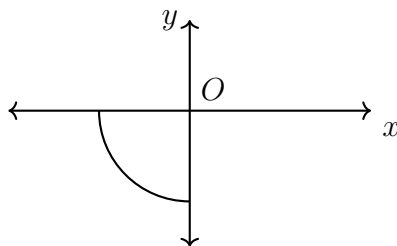


8.4 Quiz: Area, volume, density, solids

1. Find the volume of a rectangular prism with length 8 cm, width 10 cm, and height 7.5 cm.
2. A child's tent can be modeled as a pyramid with a square base whose sides measure 48 inches and whose height measures 72 inches. What is the volume of the tent in cubic inches and in cubic feet?
3. Lou has a solid clay brick in the shape of a rectangular prism with a length of 8 inches, a width of 3.5 inches, and a height of 2.25 inches. If the clay weighs 1.055 oz/in^3 , how much does Lou's brick weigh, to the nearest ounce?

8.4 Prequiz Regents Practice: 3-D rotation

4. If a rectangle is continuously rotated around one of its sides, what is the three-dimensional figure formed?
- (a) cone (c) cylinder
(b) sphere (d) rectangular prism
5. An isosceles right triangle whose legs measure 6 is continuously rotated about one of its legs to form a three-dimensional object. The three-dimensional object is a
- (a) cylinder with a diameter of 6 (c) cone with a diameter of 6
(b) cylinder with a diameter of 12 (d) cone with a diameter of 12
6. Which three-dimensional figure will result when a rectangle 6 inches long and 5 inches wide is continuously rotated about the longer side?
- (a) a rectangular prism with a length 6 inches, width 6 inches, and height 5 inches
(b) a rectangular prism with a length 6 inches, width 5 inches, and height 5 inches
(c) a cylinder with a radius of 5 inches and a height of 6 inches
(d) a cylinder with a radius of 6 inches and a height of 5 inches
7. Circle O is centered at the origin. In the diagram below, a quarter of circle O is graphed.



- Which three-dimensional figure is generated when the quarter circle is continuously rotated about the y -axis?
- (a) cone (c) cylinder
(b) sphere (d) hemisphere
8. If an equilateral triangle is continuously rotated around one of its medians, which 3-dimensional object is generated?
- (a) cone (c) pyramid
(b) sphere (d) prism