

# Geometric Measurement Worksheet 4 - Answers

Round all answers to the nearest tenth.

1. Given a sphere with a volume of  $2000 \text{ cm}^3$ , find the area of the perpendicular cross section right through its center.  
 $191.9 \text{ cm}^2$
2. Given a cylinder with radius 7 in and height 10 in, find the area of a cross section that is parallel to its base.  
 $153.9 \text{ in}^2$
3. Given a cone with a radius of 6 ft and a height of 12 ft, find the area of the triangle formed by a perpendicular cross section down through the cone's center.  
 $72 \text{ ft}^2$
4. Given a cube with volume of  $27,000 \text{ cm}^3$ , find the area of a cross section parallel to its base.  
 $900 \text{ cm}^2$
5. Given a cylinder with height 60 mm and radius 20 mm, find the area of the rectangle formed by the perpendicular cross-section right down the cylinder's center.  
 $2400 \text{ mm}^2$
6. A circle has a radius of 15 cm. What is the volume of the sphere made by rotating this circle?  
 $14137 \text{ cm}^3$
7. A rectangle has a length of 3 m and a height of 5 m. What is the volume of the cylinder made by rotating this rectangle?  
 $35.3 \text{ m}^3$
8. An isosceles triangle has base of 20 ft and an altitude of 30 ft. What is the volume of the cone made by rotating this triangle?  
 $3141.6 \text{ ft}^3$
9. A square with area of  $100 \text{ cm}^2$  is rotated to form a cylinder. What is the volume of the cylinder?  
 $785.4 \text{ cm}^3$
10. If an equilateral triangle with perimeter 24 cm is rotated, find the volume of the cone that is formed.  
 $116.1 \text{ cm}^3$

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