Geometric Measurement Worksheet 4 - Answers

Round all answers to the nearest tenth.

1. Given a sphere with a volume of 2000 cm\(^3\), find the area of the perpendicular cross section right through its center.
   191.9 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 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 ft\(^2\)

4. Given a cube with volume of 27,000 cm\(^3\), find the area of a cross section parallel to its base.
   900 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 mm\(^2\)

6. A circle has a radius of 15 cm. What is the volume of the sphere made by rotating this circle?
   14137 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 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 ft\(^3\)

9. A square with area of 100 cm\(^2\) is rotated to form a cylinder. What is the volume of the cylinder?
   785.4 cm\(^3\)

10. If an equilateral triangle with perimeter 24 cm is rotated, find the volume of the cone that is formed.
    116.1 cm\(^3\)