

Name _____

Geometry Word Problems



1. Emily is designing a circular garden for her backyard. She wants to construct a fountain at the center of the garden, which occupies 10% of the total area. If the remaining area of the garden is 900π square meters, what is the radius of the garden?
2. Liam is constructing a rectangular prism-shaped fish tank for his pet fish. If the volume of the tank is 400 cubic feet and the length is 4 times the width and twice the height, what are the dimensions of the tank?
3. Harper is wrapping a ribbon around the edge of her cylindrical gift. If the volume of the cylinder is 500π cubic inches and the height is 20 inches, what is the total surface area of the cylinder?
4. Owen is building a fence around his irregularly shaped garden. If the lengths of the sides are 18 meters, 15 meters, 12 meters, and 9 meters, and one of the angles between the sides is 90 degrees, what is the area of the garden?
5. Mia is cutting out triangles for a school project. If the lengths of the three sides are 16 inches, 17 inches, and 21 inches, what type of triangle is it?
6. Noah is wrapping a ribbon around the edge of his cuboid-shaped gift box. If the volume of the box is 450 cubic inches and the length is 3 times the width and twice the height, what are the dimensions of the box?
7. Emma is planting flowers in her circular garden. If the circumference of the garden is 100π feet and the width of the pathway surrounding the garden is 3 feet, what is the area of the pathway?
8. Ethan is building a triangular roof for his doghouse. If the area of the roof is 72 square feet and the lengths of the three sides are in the ratio 3:4:5, what type of triangle is it?
9. Olivia is drawing a regular hexagon on a piece of paper. If the area of the hexagon is $300\sqrt{3}$ square centimeters, what is the length of each side?
10. Jack is drawing a regular octagon for his art project. If the perimeter of the octagon is 80 inches and the length of each side is x , what is the value of x ?

