

**Al Mawaheb School    Mathematics Worksheet    Grade 9 General**  
**Teacher : Jisha**

**GROUP : A**

1. **GEOMETRY** The volume of a cylinder  $V$  is given by the formula  $V = \pi r^2 h$ , where  $r$  is the radius and  $h$  is the height.
    - a. Solve the formula for  $h$ .
    - b. Find the height of a cylinder with volume  $2500\pi$  cubic feet and radius 10 feet.
  2. **WATER PRESSURE** The water pressure on a submerged object is given by  $P = 64d$ , where  $P$  is the pressure in pounds per square foot, and  $d$  is the depth of the object in feet.
    - a. Solve the formula for  $d$ .
    - b. Find the depth of a submerged object if the pressure is 672 pounds per square foot.
  3. **GRAPHS** The equation of a line containing the points  $(a, 0)$  and  $(0, b)$  is given by the formula  $\frac{x}{a} + \frac{y}{b} = 1$ .
    - a. Solve the equation for  $y$ .
    - b. Suppose the line contains the points  $(4, 0)$ , and  $(0, -2)$ . If  $x = 3$ , find  $y$ .
  4. **GEOMETRY** The surface area of a rectangular solid is given by the formula  $s = 2\ell w + 2\ell h + 2wh$ , where  $\ell$  = length,  $w$  = width, and  $h$  = height.
    - a. Solve the formula for  $h$ .
    - b. The surface area of a rectangular solid with length 6 centimeters and width 3 centimeters is 72 square centimeters. Find the height.
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