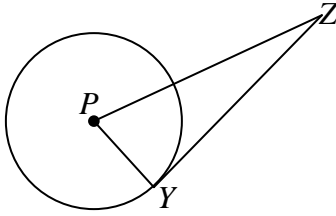
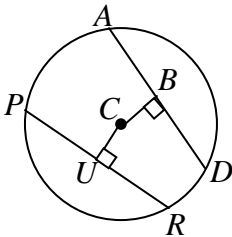


1. \overline{YZ} is tangent to circle P at point Y . The radius is 13 mm long. If $\angle PZY = 24^\circ$, find PZ . (nearest tenth)



2. A sphere has a surface area of $289\pi \text{ m}^2$. What is the volume?

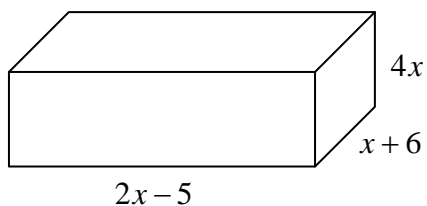
3. Given circle C with $BC=CU$, $PR = 7x^2 - 25$ and $AD = 11 + 5x^2$, find AD .



4. Circle M contains chord \overline{EF} which is 26 cm long. The diameter of the circle is 32 cm long. Find the distance from \overline{EF} to M . (nearest tenth)

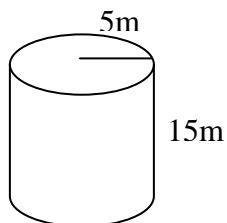
5. The volume of a cube is 343 cm^3 . Find the surface area.

6. Find the volume.



7. Find the surface area and volume of a cube with sides of 12 in.

8. Find the volume and surface area.



9-10. Use the quadratic formula to solve the following equations. Round answers to the nearest tenth if necessary.

9. $x^2 + 43x - 90 = 0$

10. $3x^2 + 10x + 5 = 0$

11-12. Solve each system by method of choice (substitution or elimination). Write your answer as an ordered pair.

11.
$$\begin{aligned} y &= 2x \\ x + 2y &= 18 \end{aligned}$$

12.
$$\begin{aligned} 2x - 3y &= 8 \\ 3x + 2y &= -1 \end{aligned}$$