Module 3
Geometry Problems
Area of a Triangle

Find the area of the triangle below. Be sure to include the correct unit in your answer.

\[ A = \frac{1}{2} bh \]
\[ A = \frac{1}{2} (8)(15) \]
\[ A = 60 \text{ cm}^2 \]
Circumference and area of a Circle

Find the circumference and the area of a circle with diameter 4 cm.

Use the value 3.14 for π, and do not round your answers. Be sure to include the correct units in your answers.

\[ C = 2\pi r \]
\[ A = \pi r^2 \]

\[ C = 2 \times 3.14 \times 2 \]
\[ C = 4 \times 3.14 \]
\[ C = 12.56 \text{ cm} \]

\[ A = 3.14 \times 2^2 \]
\[ A = 4 \times 3.14 \]
\[ A = 12.56 \text{ cm}^2 \]
Volume of a Rectangular Prism

Find the volume of the rectangular prism.

\[ V = \ell \times w \times h \]
\[ V = (4)(7)(8) \]
\[ V = 224 \text{ in}^3 \]
Volume of a Cylinder

The diameter of a water tower tank is 16 ft, and its height is 10 ft. What is the volume of water that can be stored in the tank? (Use the value 3.14 for \( \pi \), and round your answer to the nearest cubic foot. Be sure to include the correct unit in your answer.)

\[
V = \pi r^2 h \\
V = (3.14)(8)^2(10) \\
V = 3.14(64)(10) \\
V = 2009.6 \text{ ft}^3
\]
Find the side length of a rectangle given its perimeter or area

The perimeter of a rectangular garden is 316 feet. If the width of the garden is 69 feet, what is its length?

\[ P = 2l + 2w \]

\[ 2l + 2(69) = 316 \]

\[ 2l + 138 = 316 \]

\[ 2l = 178 \]

\[ l = 89 \text{ ft} \]