

1. Explain the difference between a perimeter and an area. Give an example.
2. Explain what “SOH CAH TOA” refers to in trigonometry.
3. Explain why is the ratio of lengths equaling 1.62 is significant?
4. If you cut a circle with a radius of 2 feet and a triangle with a base of 3 ft and a height of 2 ft, from a rectangular piece 4 ft by 8 ft of plywood, how much plywood is left for other projects. Make a sketch.
5. A cylindrical drum has a radius of 2 feet and a height of 5 feet.
 - a. If you are going to paint the outside of the drum with paint that covers 50 sq ft per quart of paint, how many full quarts of paint should you buy?
 - b. If the drum is filled with gasoline weighing 42 lbs per cubic feet, how heavy is the gasoline in the drum.
6. Make a sketch and solve the missing parts of a right $\triangle FUN$, if $\angle N = 90^\circ$, $\angle F = 23^\circ$, $n = 58$.

$$\angle U = \underline{\hspace{2cm}}$$

$$f = \underline{\hspace{2cm}}$$

$$u = \underline{\hspace{2cm}}$$

6. Determine the height of a building if from a point 130 feet from the building, the angle of elevation from level ground to the top of the building is 82° .
8. A box of candy has a one side equal to 9 inches. Find two different lengths for the other side so that the box is a golden rectangle.