PROBLEMS AND SOLUTIONS - SIMPLE GEOMETRIC FIGURES

Prepared by Ingrid Stewart, Ph.D., College of Southern Nevada
Please Send Questions and Comments to ingrid.stewart@csn.edu. Thank you!

YOU MUST BE ABLE TO DO THE FOLLOWING PROBLEMS WITHOUT A CALCULATOR!

Problem 1:

Find the perimeter and the area of a rectangle whose length is 14 ft and whose width is 9 ft.

Problem 2:

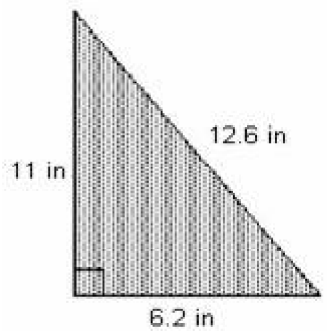
Find the perimeter and the area a square that measures 5 cm on a side.

Problem 3:

Find the perimeter of a parallelogram that has sides of 30 ft and 18 ft.

Problem 4:

Find the perimeter of the triangle.



Problem 5:

A garden plot turned out to be a parallelogram with base 12 ft and height 6ft. What is the area of the garden plot?

Problem 6:

A parking lot plot turned out to be a triangle with base 6.2 m and height 10 m. What is the area of the parking lot?

Problem 7:

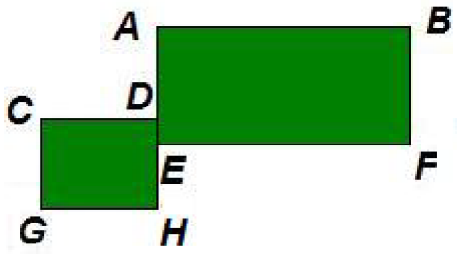
A farmer wants to build a rectangular pen for his cattle using as one side his barn that is 30 ft long. If 110 ft of chain link fencing is available, what is the length that each side adjacent to the barn can have?

Problem 8:

A flower lover would like to erect a fence around her rectangular rose garden. If her garden is 12 ft long and 15 ft wide and the fence costs $1.50 per foot, how much will she have to pay?

Problem 9:

In the figure below side BF measures 8 inches, side AH measures 11 inches, side AB measures 10 inches, side GC measures 5 inches, and side CD measures 4 inches. What is the perimeter of this figure?



Problem 10:

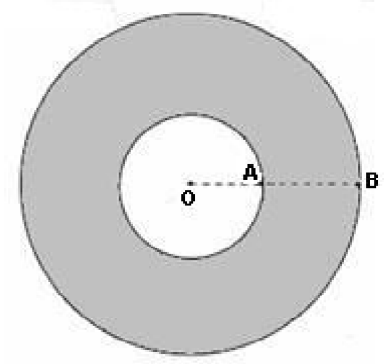
Find the area of a circle whose diameter is 12 cm. Use 3.14 for π!

Problem 11:

Find the circumference of a circle whose diameter is 16 cm. Use 3.14 for π!

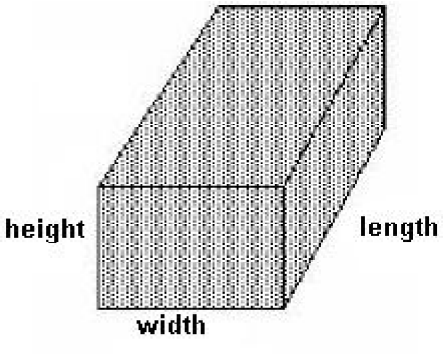
Problem 12:

Find the area of the shaded ring rounded to the nearest hundredth. Assume that the point O is the center of both the small and the large circle. The distance OA, which is the radius of the small circle, is 5 meters and the distance OB, which is the radius of the large circle, is 11 meters. Use 3.14 for π!



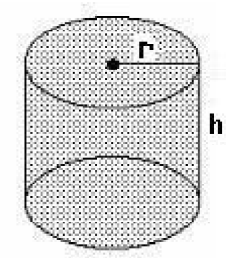
Problem 13:

Determine the volume ***V*** and the surface area ***SA*** of the given right prism, where height = 2 inches, width = 3 inches, and length = 4 inches.



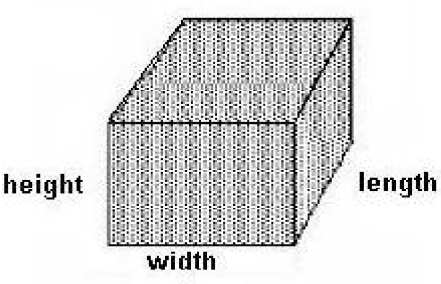
Problem 14:

Determine the volume ***V*** and the surface area ***SA*** of the right circular cylinder, where h = 4 m and r = 2 m. Round to two decimal places. Use 3.14 for π!



Problem 15:

Determine the volume ***V*** and the surface area ***SA*** of a cube where height = 1 inches, width = 1 inches, and length = 1 inches.



SOLUTIONS

You can find detailed solutions below the link for this problem set!

1. P = 46 ft; A = 126 ft^2	2. P = 20 cm; A = 25 cm^2	3. P = 96 ft
4. P = 29.8 in	5. A = 72 ft^2	6. A = 31 m^2
7. 40 ft	8. $81	9. 50 in
10. 113.04 cm^2	11. 50.24 cm	12. 301.44 m^2
13. V = 24 in^3 and SA = 52 in^2	14. V = 50.24 m^3 and SA = 75.36 m^2	15. V = 1 in^3 and SA = 6 in^2