

### Primary Topics for Competency 16

- Geometric Shapes
- Geometry Equations & Calculations
  - Finding a Center
  - Finding a Radius
  - Finding Length of a Line
  - Finding an Angle
  - Solve for a hypotenuse
- Volume Calculations
- Determine Square Footage
- Calculating Lineal Feet of wood
- Calculating Areas for different Geometric Shapes
- Calculating Cubic Yards of Concrete

### Terms & Abbreviations to be defined or identified for Competency 16

- |                       |                 |                  |
|-----------------------|-----------------|------------------|
| • Skew Lines          | • Return        | • $\sqrt{\quad}$ |
| • Parallel Lines      | • Complementary | • Pentagon       |
| • Perpendicular Lines | • Supplementary | • Hexagon        |
| • Pentagon            | • Cone          | • Octagon        |
| • True Length         | • Chord         | • Major Axis     |
| • Right Triangle      | • Cylinder      | • Equilateral    |
| • Isosceles Triangle  | • Square Root   | • Acute          |
| • Obtuse              | • Cubed         | • Symmetrical    |
| • Hypotenuse          | • $\emptyset$   | • Circumscribed  |
| • Yard                | • Area          | • Sum            |
| • R                   | • Volume        |                  |
| • Register            | • $\pi$         |                  |

Sample Questions

What is the square footage of a rectangular 50'x24' building?

- a. 980
- b. 1140
- c. 1200
- d. 1420

The distance across a circle passing through it's center.

- a. Arc
- b. Diameter
- c. Major Axis
- d. Radius
- e. Chord

The long axis of an ellipse.

- a. Arc
- b. Diameter
- c. Major Axis
- d. Radius
- e. Chord

Any straight line whose opposite ends terminate on the circumference of the circle.

- a. Arc
- b. Diameter
- c. Major Axis
- d. Radius
- e. Chord

A triangle with one 90° angle.

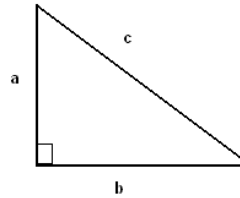
- a. Obtuse
- b. Equilateral
- c. Isosceles
- d. Right

An angle less than 90°.

- a. Acute
- b. Complementary
- c. Obtuse
- d. Supplementary

Choose the Correct formula and to solve for "c"

- a.  $a^2 + b^2 = c^2$
- b.  $(a \times a) + (b \times b) = c^2$
- c.  $b^2 + a^2 = c^{2A}$
- d.  $a^2 + b = c$

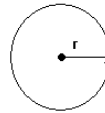


Choose the Correct formula and solve for the approximate area of this circle

$r \times r$  or  $\pi r^2$  or  $\pi r^3$

$r = 3$

- a. 24.75
- b. 28.25
- c. 31.50
- d. 33.00

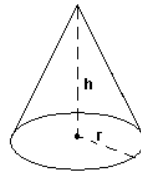


Use the following formula and determine the approximate area of this cone.

$(1/3) \times \pi r^2 \times h$

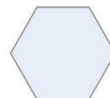
$r = 3$   $h = 10$

- a. 94.25
- b. 98.75
- c. 90.50
- d. 92.00



Identify the following shape

- a. Triangle
- b. Square
- c. Pentagon
- d. Hexagon



Carpet is calculated by the square yard.

Determine the Square Yards of Carpet needed for the following room.

12'-6" x 22'-0"

- a. 28
- b. 30
- c. 31
- d. 33