6.- Calculate the Area of an Object

Calculate the Area of an object

Rectangle and Triangle

Area of Rectangle

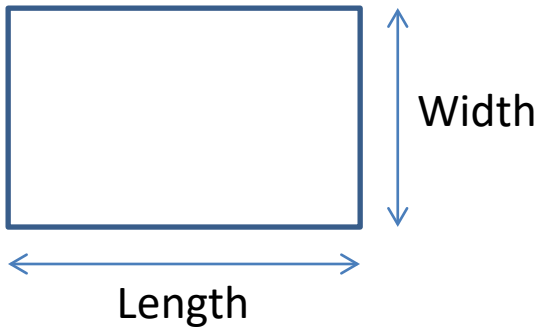
To find the area of rectangle we multiply its Length and Width.

- Area of Rectangle = L X W

Where,

L is the length of longer side of rectangle

W is the length of smaller side of rectangle



Area of a Triangle

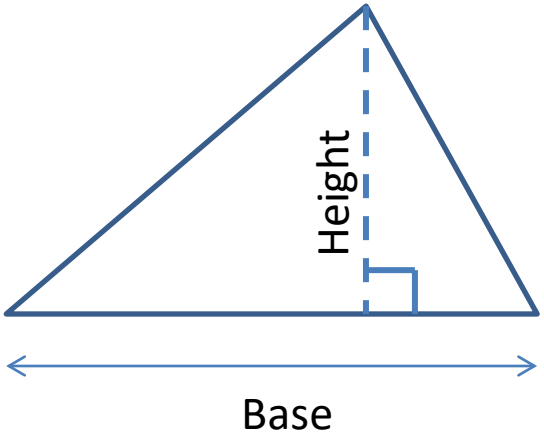
The area of the triangle is given by the formula mentioned below:

- Area of a Triangle = $\frac{(B\ x\ H)}{2}$

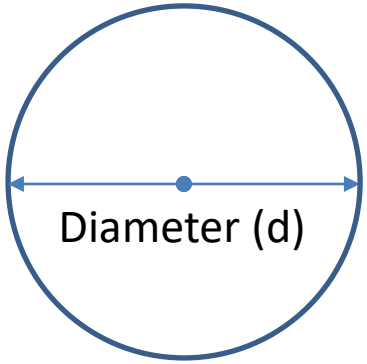
Where,

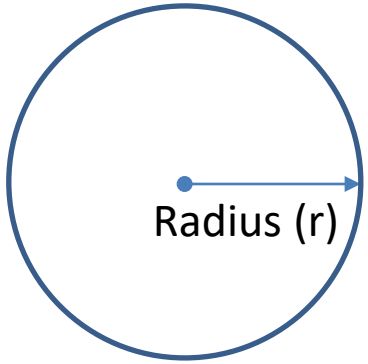
B is the Base of the Triangle.

H is the perpendicular Height of the Triangle



Circles





DIAMETER

The measure of the length of a straight line going across the circle and passing through its center.

RADIUS

The measure of the distance from the center of a circle to its outside edge.

NOTE: The radius is always equal to½ the diameter.

Calculate the Area of an object

Circle and Hollow Cylinder

Area of a Circle

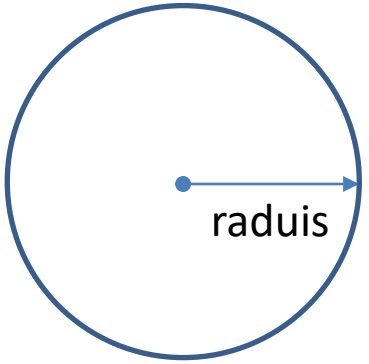
To find the area of a circle we multiply Pi times the radius squared

- Area of Circle = $\pi\ r^2$

Where,

π (sounds like 'pie') is 3.1416

r is the radius of the circle (radius is half the diameter)



Area of a Hollow Cylinder (no caps)

The area of a hollow cylinder is given by the formula mentioned below:

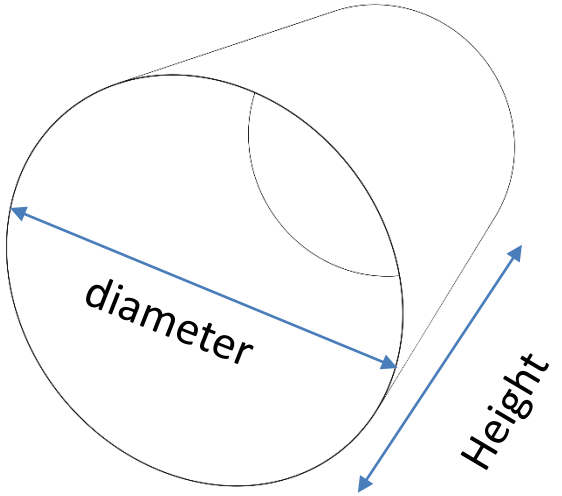
- Area of a Hollow Cylinder $=\pi * d * h$

Where,

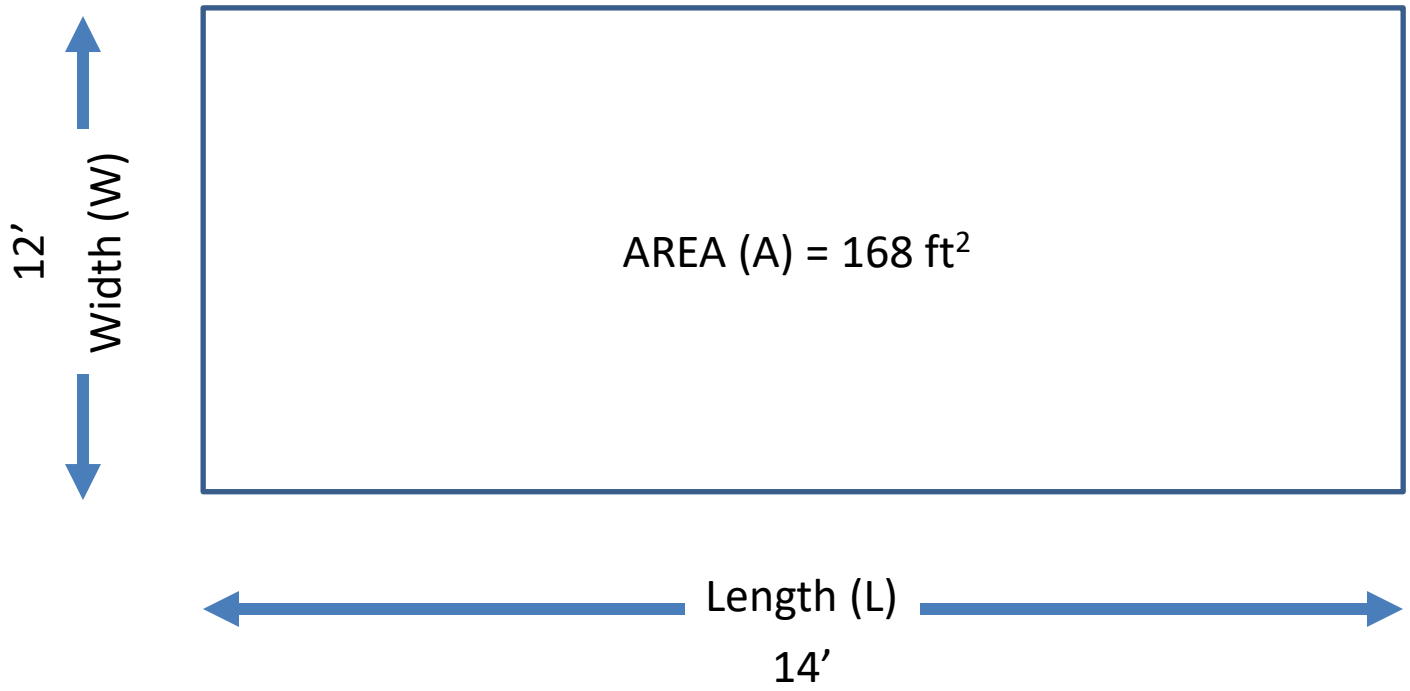
π (sounds like 'pie') is 3.1416

d is the diameter of the cylinder

H is the height of the cylinder



Area of a Rectangle or Square



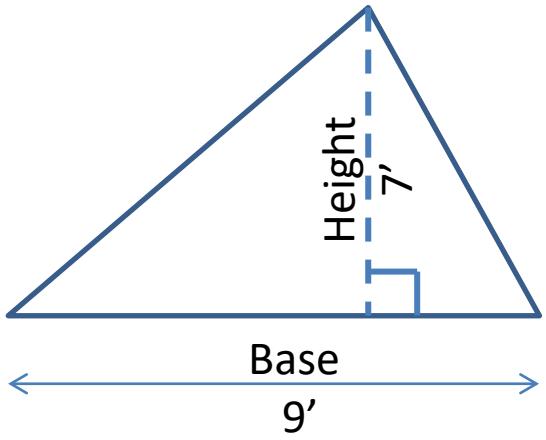
Formula	A = L x W
Calculations	A = 14’ x 12’
Area	A = 168 ft²

Area of a Triangle

$$\text{Formula} = \frac{(\text{Base} \times \text{Height})}{2}$$

$$\text{Calculations} = \frac{(9' \times 7')}{2}$$

Area= 31.5 ft^2



Area of a Circle

$$\text{Area} = \pi r^2$$

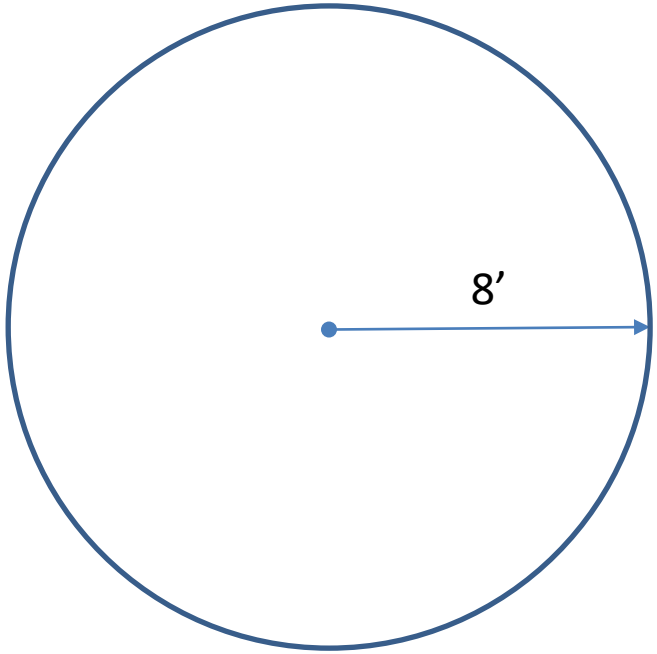
- Formula = πr^2

Where,

π (sounds like 'pie') is 3.1416

r is the radius of the circle (radius is half the diameter)

NOTE: To square a number: multiply it by itself



Calculations:

$3.14 \times (8')^2$

$3.14 \times 8' \times 8'$

$200.96\ ft^2$

Area: $200.96 ft^2$

Area of a Cylinder (Hollow)

Area of a Hollow Cylinder (no caps) (i.e. pipe)

The area of a hollow cylinder is given by the formula mentioned below:

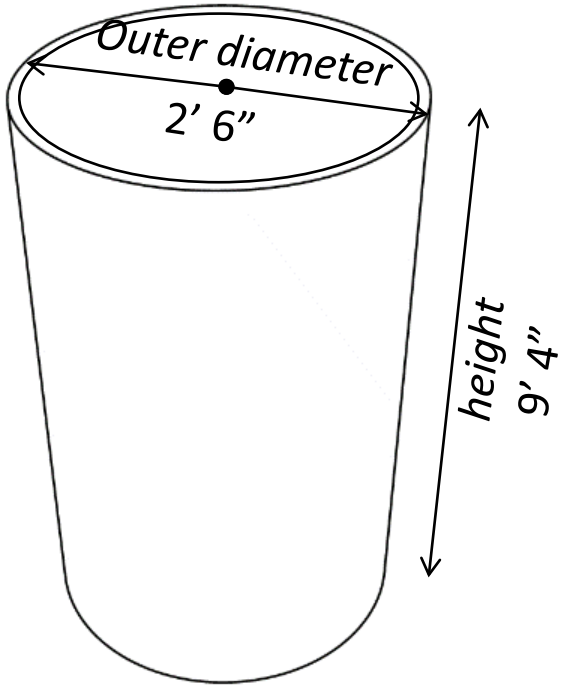
- Area of a Hollow Cylinder $=\pi * d * h$

Where,

π (sounds like 'pie') is 3.1416

d is the diameter of the cylinder

h is the height of the cylinder



Calculations:

$$\pi * d * h$$

3.14 x 2' 6" x 9' 4"

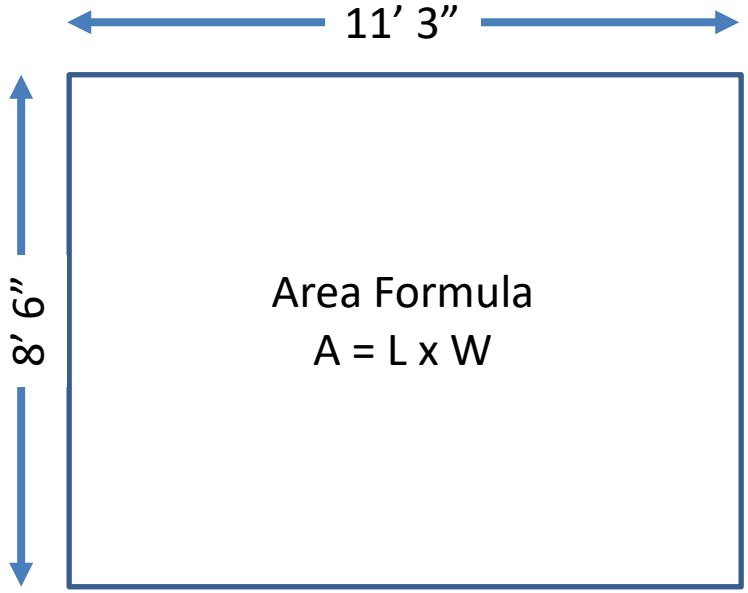
3.14 x 2.5' x 9.33'

73.24 ft^2

Area: 73.24 ft^2

Area Practice Problems for a Rectangle 1 of 3

HINT: Convert measurements in Feet-inches to Feet in decimals first.



What is the area of this rectangle?

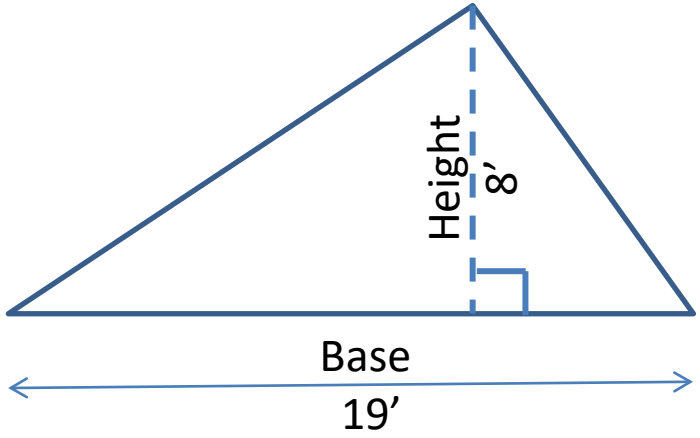
A = _____

7

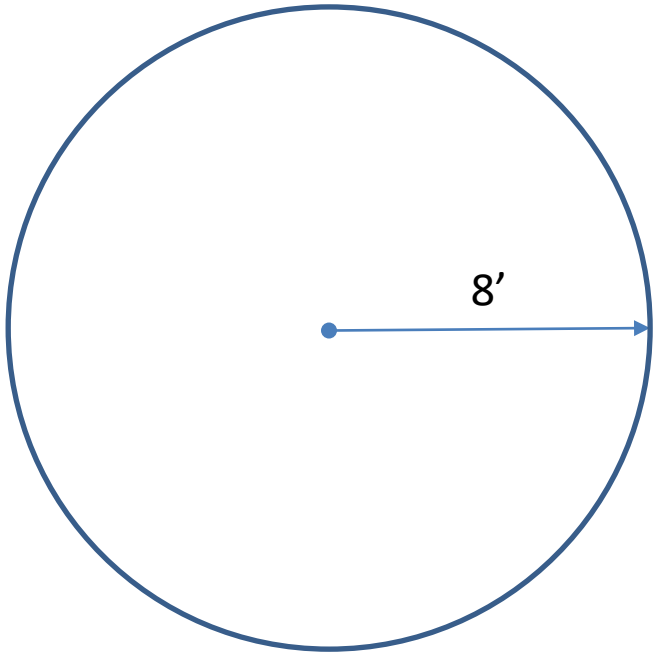
Area of a Triangle

practice problem

Area= ft^2

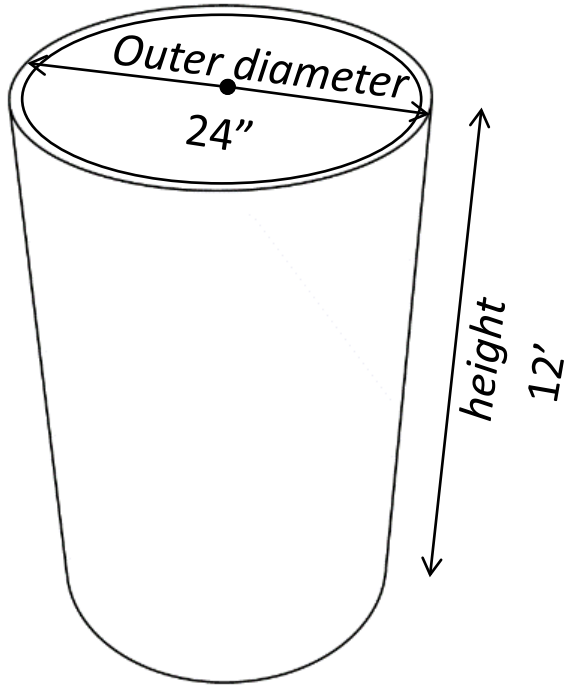


Area Practice Problems for a Circle



Area: _____

Area Practice Problems for a Cylinder (Hollow)



Area: _____ ft^2