

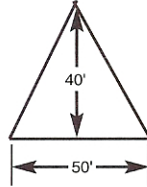
# Estimating Paint Needs

## Triangle

To find the number of square feet in any shape triangle or 3 sided surfaces, multiply the height by the width and divide the total by 2.

Example:  
40' height x 50' width = 2,000 sq. ft.

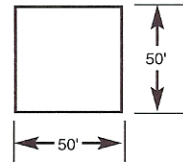
$$\frac{1,000 \text{ sq. ft.}}{2} = 2,000$$



## Square

Multiply the base measurement in feet times the height in feet.

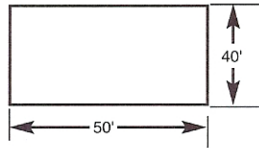
Example:  
50' x 50' = 2,500 sq. ft.



## Rectangle

Multiply the base measurement in feet times the height in feet.

Example:  
40' x 50' = 2,000 sq. ft.



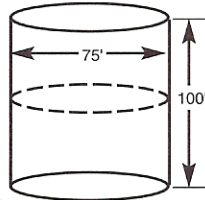
## Cylinder

When circumference (distance around cylinder) is known, multiply height by circumference.

Example:  
236' circumference x 100' height = 23,600 sq. ft.

When diameter (distance across is known, multiply diameter by 3.1416. This gives circumference. Then multiply by height.

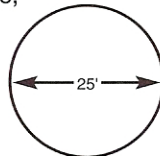
Example:  
3.1416 x 75' diameter = 235.6 ft.  
236' circumference x 100' = 23,600 sq. ft.  
Figures do not include end area. See circle.



## Circle

To find the number of square feet in a circle, multiply the diameter (distance across) by itself and then multiply this total by .7854.

Example:  
25' diameter x 25' diameter = 625  
625 x .7854 = 490.87 sq. ft.

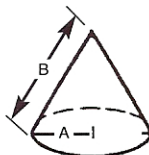


## Cone

Determine area of base by multiply 3.1416 times radius (A) in feet.

Determine the surface area of a cone by multiplying circumference of base (in feet) times one-half of the slant height (B) in feet.

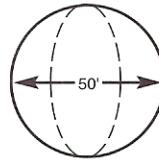
Add the surface foot area of the base to the square foot area of the cone side for total square foot area.



## Sphere

To find the number of square feet in a sphere or ball, multiply the diameter (distance across) by itself and then multiply this total by 3.1416. If you haven't the diameter, you can find it by measuring the circumference and multiply it by .31831.

Example:  
25' diameter x 25' diameter = 625  
625 x .7854 = 490.87 sq. ft.



Example:  
50' dia. x 50' dia. = 2,500  
2,500 x 3.1416 = 7,854 sq. ft.

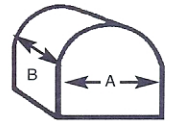
\*Outside surface area only – double surface area for inside and outside.

Diameter in feet	*Surface of sphere in square feet
20	1,257
25	1,963
30	2,827
35	3,848
40	5,027
45	6,362
50	7,854
55	9,503
60	11,310
65	13,273
70	15,394

## Arch Roof

Multiply the length (B) by width (A) and add one-half the total.

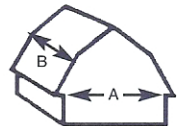
Example: A = 50', B = 100'  
50' width x 100' length = 5,000  
5,000 + 2,500 = 7,500 sq. ft.



## Gambrel Roof

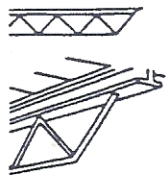
Multiply the length (B) by width (A) and add one-third of the total.

Example: A = 60', B = 100'  
60' width x 100' length = 6,000  
6,000 + 2,000 = 8,000 sq. ft.



## Open Web Steel Joists

Original equipment manufacturers and fabricators generally dip these joists, as a first or shop coat. On all repaint work, by spray, these manufacturers recommend the paint be estimated by thinking of the joist as a solid rather than open web. Double the length times width for both sides.



## Stacks

To compute the square foot area of a stack multiply height (B) by the average diameter (A) and multiply the total by 3.

Example: Diameter of stack at the top is 5 feet and at the bottom its 15 feet. Average diameter (A) is then 10 feet (5+15 ÷ 2). Height (B) 60 feet. 60 x 10 = 600. 600 x 3 = 1800 sq. ft. of surface area.

