

# Useful Information

- To find circumference of a circle, multiply diameter by 3.1416
- To find diameter of a circle, multiply circumference by .31831.
- To find area of a circle, multiply square of diameter by .7854.
- Area of a rectangle = length multiplied by width. Doubling the diameter of a circle increases its area four times.
- To find area of a triangle multiply base by  $\frac{1}{2}$  perpendicular height.
- Area of ellipse = product of both diameters x .7854
- Area of parallelogram = base x altitude.
- To find a side of an inscribed square, multiply diameter by 0.7071 or multiply circumference by 0.2251 or divide circumference by 4.4428.
- Side of inscribed cube = radius of sphere x 1.1547.
- To find a side of an equal square, multiply diameter by .8862.
- Square. A side multiplied by 1.1412 equals diameter of its circumscribing circle.
- A side multiplied by 4.443 equals circumference of its circumscribing circle.
- A side multiplied by 1.128 equals diameter of an equal circle.
- A side multiplied by 3.547 equals circumference of an equal circle.
- To find cubic inches in a ball, multiply cube of diameter by .5236
- To find cubic contents of a cone, multiply area of base by  $\frac{1}{3}$  the altitude.
- Surface of a frustrum of cone or pyramid = sum of circumference of both ends x  $\frac{1}{2}$  slant height plus area of both ends.
- Contents of frustrum of cone or pyramid = multiply area of two ends and square them. Add the area of the two ends and x  $\frac{1}{3}$  altitude
- Doubling the diameter of a pipe increases its capacity four times.
- A gallon of water weights  $8 \frac{1}{3}$  lbs and contains 231 cubic inches.
- A cubic foot of water contains  $7 \frac{1}{2}$  gallons, 1728 cubic inches and weights  $62 \frac{1}{2}$  lbs.
- To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by .434.
- Steam rising from water at its boiling point (212°F) has a pressure equal to the atmosphere (14.7 lbs to the square inch).
- A standard horse power: the evaporation of 30 lbs of water per hour from a feed water temperature of 100°F into steam at 70 lbs. guage pressure.
- To find capacity of tanks any size, given dimensions of cylinder in inches, to find its capacity in U.S. gallons: square the diameter, multiply by the length and by .0034.