Definition: A circle is the locus of all points equidistant from a central point.

Definitions Related to Circles

arc: a curved line that is part of the circumference of a circle

chord: a line segment within a circle that touches 2 points on the circle.

circumference: the distance around the circle.

diameter: the longest distance from one end of a circle to the other.

origin: the center of the circle

pi (π): A number, 3.141592..., equal to (the circumference) / (the diameter) of any circle.

radius: distance from center of circle to any point on it.

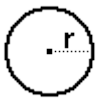
sector: is like a slice of pie (a circle wedge).

tangent of circle: a line perpendicular to the radius that touches CIRCLE one point on the circle.

Diameter = 2 x radius of circle

Circumference of Circle = **PI x diameter** = 2 PI x radius
where **PI = π = 3.141592...**

Area of Circle:



area = PI r^2

Length of a Circular Arc: (with central angle θ)
if the angle θ is in degrees, then length = θ x (PI/180) x r
if the angle θ is in radians, then length = r x θ

Area of Circle Sector: (with central angle θ)
if the angle θ is in degrees, then area = (θ/360)x PI r^2
if the angle θ is in radians, then area = ((θ/(2PI))x PI r^2