



Math for the people, by the people.

radian

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Entry type	Definition
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The *radian* is a unit of angle used in the higher mathematics. The magnitude of an angle α is one radian, if the arc corresponding to the angle α as a central angle of a circle is equally long as the radius of the circle. Thus, a radian is equal to $\frac{180}{\pi}$ °, minutes and seconds approximately 57° 17' 44.80625".

In degrees, a circle has 360 degrees, while in radians a circle has 2π radians. In fact, many angles of equilateral polygons are equal to a multiple of π divided by some integer: for example, the interior angle of an equilateral triangle's vertex is $\frac{\pi}{3}$, while the interior angle of an equilateral pentagon's vertex is $\frac{3\pi}{5}$.