
Circular Functions (Mathematics)

Radian Measure

$$\pi^c = 180^\circ$$

Arc Length

$$l = r\theta$$

Area of a Sector of a Circle

$$A = \frac{1}{2}r^2\theta$$

Area of a Segment of a Circle

$$A = \frac{1}{2}r^2(\theta - \sin\theta)$$

Graphs of $y = a \sin bx$ and $y = a \cos bx$

- The maximum and minimum values of $a \sin x$ and b and $a \cos x$ are a and $-a$ respectively, i.e. the effect of the transformation from a is to dilate the graph parallel to the y-axis.
- The amplitude of the graph is $|a|$.
- By replacing x with bx , we have $bx = 2\pi$, i.e.