Degrees	Radians (π)	Sine (sin)	Cosine (cos)	Tangent (tan)
0°	0	0	1	0
30°	π/6	1/2	√3/2	√3/3
45°	π/4	√2/2	√2/2	1
60°	π/3	√3/2	1/2	√3
90°	π/2	1	0	Undefined
120°	2π/3	√3/2	-1/2	-√3
135°	3π/4	√2/2	-√2/2	-1
150°	5π/6	1/2	-√3/2	-√3/3
180°	π	0	-1	0
210°	7π/6	-1/2	-√3/2	√3/3
225°	5π/4	-√2/2	-√2/2	1
240°	4π/3	-√3/2	-1/2	√3
270°	3π/2	-1	0	Undefined
300°	5π/3	-√3/2	1/2	-√3
315°	7π/4	-√2/2	√2/2	-1
330°	11π/6	-1/2	√3/2	√3/3
360°	2π	0	1	0

## **Summation formulas**

## **Sine and Cosine**

$$\sin(A \pm B) = \sin(A)\cos(B) \pm \cos(A)\sin(B)$$

$$\cos(A \pm B) = \cos(A)\cos(B) \mp \sin(A)\sin(B)$$

**Tangent:** 

$$an(A\pm B)=rac{ an(A)\pm an(B)}{1\mp an(A) an(B)}$$

## **Duplication Formulas:**

$$\sin(2A) = 2\sin(A)\cos(A)$$
  $\cos(2A) = \cos^2(A) - \sin^2(A) = 2\cos^2(A) - 1 = 1 - 2\sin^2(A)$   $\tan(2A) = \frac{2\tan(A)}{1 - \tan^2(A)}$ 

## **Trig Formulas**

$$\sin^2(A) + \cos^2(A) = 1$$

$$\tan^2 A + 1 = \sec^2 A$$

$$\cos^2 A = rac{1}{2}(1+\cos 2A)$$

$$\sin^2 A = rac{1}{2}(1-\cos 2A)$$