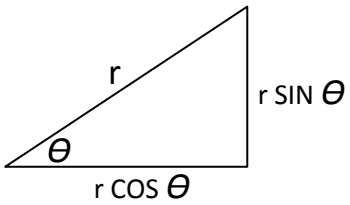
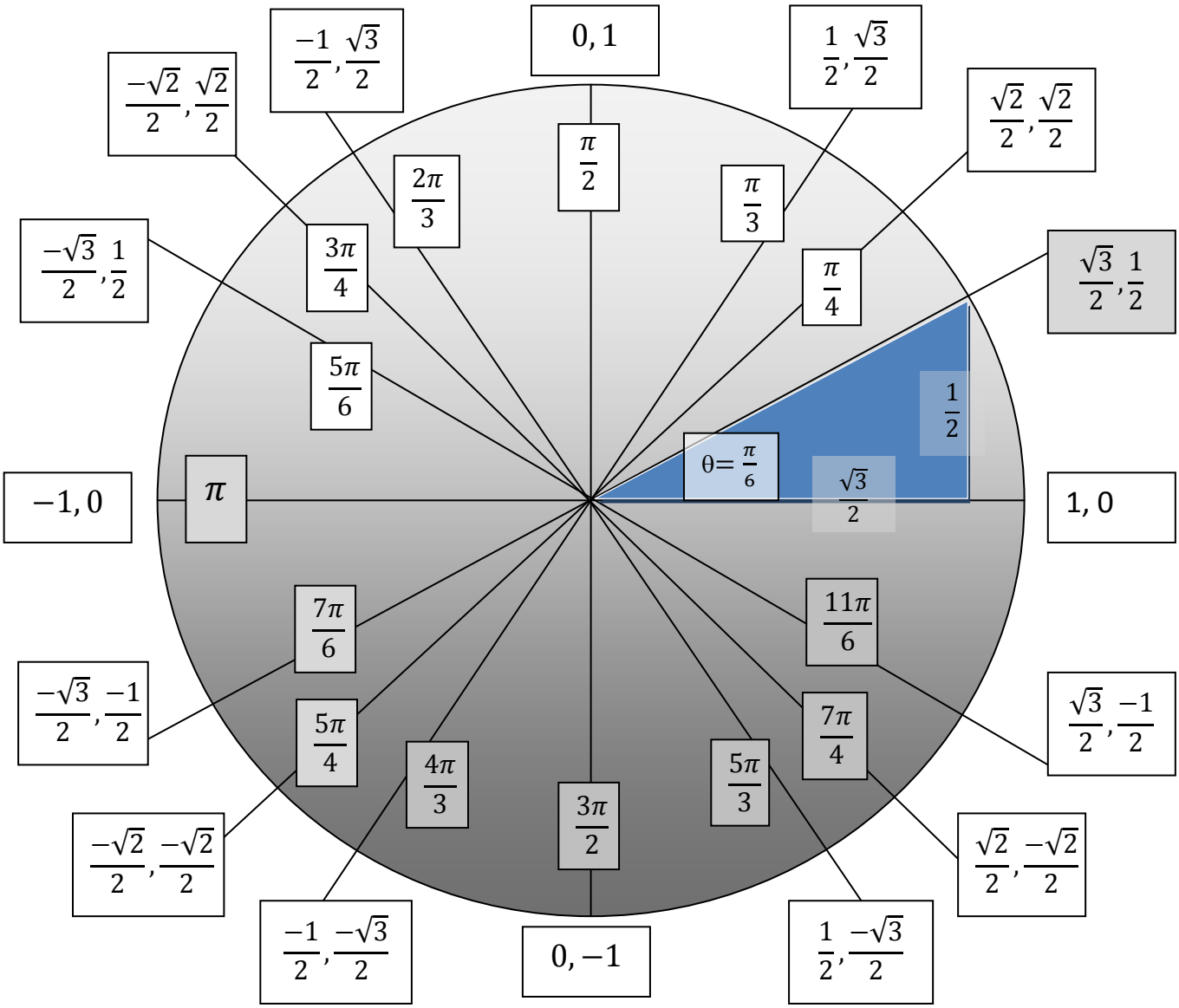
Unit Circle

(X, Y) = (COS Θ, SIN Θ)

r = 1 in a Unit Circle





$\theta = \frac{\pi}{6} = 30°$ $\theta = \frac{\pi}{4} = 45°$ $\theta = \frac{\pi}{3} = 60°$ $\sin^2 + \cos^2 = 1$

$\tan\theta = \frac{\sin\theta}{\cos\theta}$ $\sec\theta = \frac{1}{\cos\theta}$ $\csc\theta = \frac{1}{\sin\theta}$ $\cot\theta = \frac{\cos\theta}{\sin\theta}$

$\sin(2x) = 2\sin(x)\cos(x)$

$\sin(x+y) = \sin x \cos y + \cos x \sin y$

$\cos(2x) = \cos^2(x) - 2\sin^2(x)$

$\cos(x+y) = \cos x \cos y - \sin x \sin y$