Unit Circle for Trigonometry

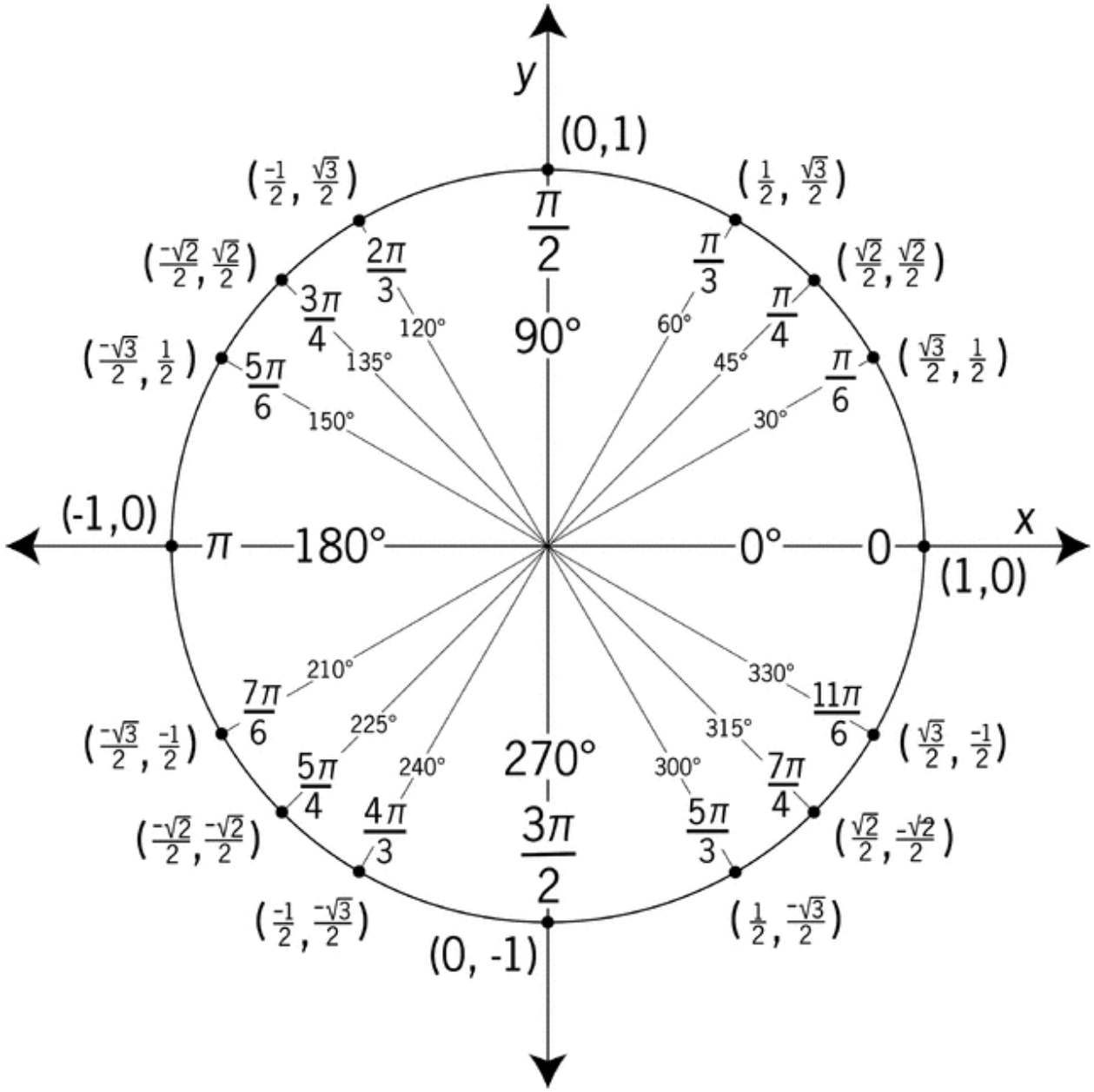
$\sin\theta = y\ coordinate\ of\ any\ point\ on\ the\ unit\ circle$: $\sin\theta = y$ $\csc\theta = \frac{1}{\sin\theta} = \frac{1}{y}$

$\cos\theta = x\ coordinate\ of\ any\ point\ on\ the\ unit\ circle$: $\cos\theta = x$ $\sec\theta = \frac{1}{\cos\theta} = \frac{1}{x}$

$\tan\theta = \frac{y\ coordinate}{x\ coordinate}$ $\tan\theta = \frac{\sin\vartheta}{\cos\theta} = \frac{y}{x}$ $\cot\theta = \frac{\cos\theta}{\sin\theta} = \frac{x}{y}$

Quadrant II: sin, csc positive

Quadrant I: all functions positive



Quadrant III: tan, cot positive

Quadrant IV: cos, sec positive