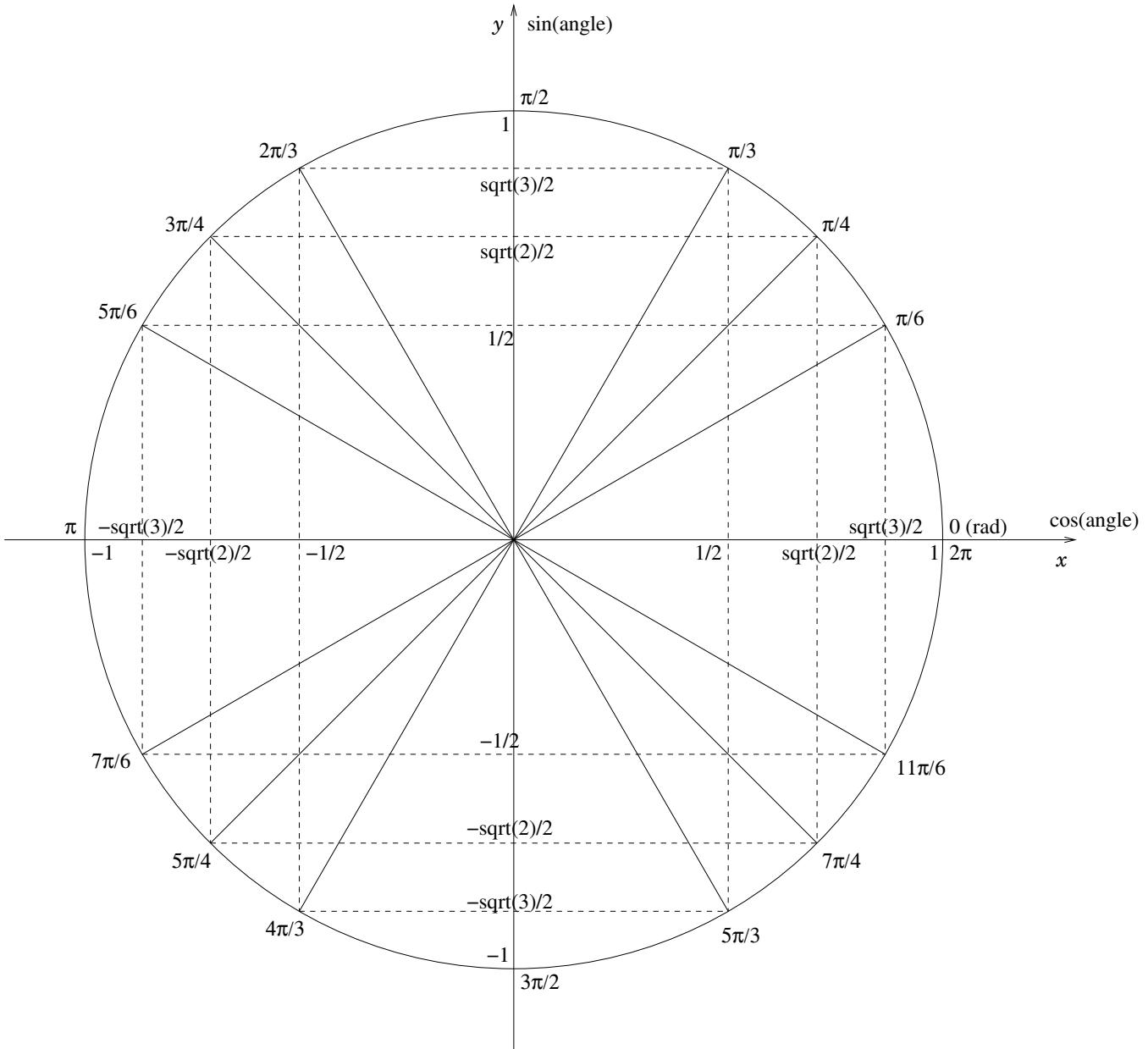


Definitions of trigonometric functions using a unit circle



$$\cos(\alpha) = x$$

$$\sec(\alpha) = \frac{1}{\cos(\alpha)} = \frac{1}{x}$$

$$\sin(\alpha) = y$$

$$\csc(\alpha) = \frac{1}{\sin(\alpha)} = \frac{1}{y}$$

$$\tan(\alpha) = \frac{\sin(\alpha)}{\cos(\alpha)} = \frac{y}{x}$$

$$\cot(\alpha) = \frac{1}{\tan(\alpha)} = \frac{\cos(\alpha)}{\sin(\alpha)} = \frac{x}{y}$$