Some trig facts.

$$\sin\frac{\pi}{6} = \frac{1}{2}, \quad \sin\frac{\pi}{3} = \frac{\sqrt{3}}{2},$$
$$\cos\frac{\pi}{6} = \frac{\sqrt{3}}{2}, \quad \cos\frac{\pi}{3} = \frac{1}{2},$$
$$\sin\frac{\pi}{4} = \cos\frac{\pi}{4} = \frac{\sqrt{2}}{2}$$

Some derivatives.

$$\frac{d}{dx}b^x = \ln(b)b^x$$

$$\frac{d}{dx}\sin(x) = \cos(x) \qquad \frac{d}{dx}\cos(x) = -\sin(x) \qquad \frac{d}{dx}\tan(x) = (\sec(x))^2$$

$$\frac{d}{dx}\csc(x) = -\csc(x)\cot(x) \quad \frac{d}{dx}\sec(x) = \sec(x)\tan(x) \quad \frac{d}{dx}\cot(x) = -(\csc(x))^2$$