

Lesson 1: Review

Review: Exponential Rules

$$\textcircled{1} x^a x^b = x^{a+b}$$

$$\textcircled{2} \frac{x^a}{x^b} = x^{a-b}$$

$$\textcircled{3} (x^a)^b = x^{ab}$$

$$\textcircled{4} x^1 = x$$

$$\textcircled{5} x^0 = 1$$

$$\textcircled{6} x^{-1} = \frac{1}{x}$$

Review: Logarithmic Rules

$$\textcircled{1} \ln 1 = 0$$

$$\textcircled{2} \ln(e^x) = x$$

$$\textcircled{3} e^{\ln x} = x$$

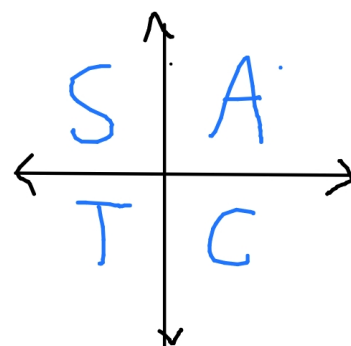
$$\textcircled{4} \ln(xy) = \ln x + \ln y$$

$$\textcircled{5} \ln\left(\frac{x}{y}\right) = \ln x - \ln y$$

$$\textcircled{6} \ln(x^m) = m \ln x$$

Review: Trigonometry

	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$
sin	$0 = \frac{0}{2}$	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{4}}{2} = 1$
cos	$1 = \frac{\sqrt{4}}{2}$	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	$\frac{0}{2} = 0$



Review: Trigonometry

$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$

$$\cot \theta = \frac{\cos \theta}{\sin \theta}$$

$$\csc \theta = \frac{1}{\sin \theta}$$

$$\sec \theta = \frac{1}{\cos \theta}$$