Trigonometric Limits

Here are some limits you may wish to memorize, particularly the last two
– they come up again and again in a variety of classes.

$$\lim_{\theta \to 0}\big(\sin(\theta)\big) = 0$$

$$\lim_{\theta \to 0}\big(\cos(\theta)\big) = 1$$

$$\lim_{\theta \to 0}\left(\frac{\sin(\theta)}{\theta}\right) = 1$$

$$\lim_{\theta \to 0}\left(\frac{\cos(\theta) - 1}{\theta}\right) = 0$$