

Evaluate the following limits:

$$\lim_{x \rightarrow 0} \frac{\sin 2x}{x} = 2 \quad \lim_{\theta \rightarrow 0} \frac{1 - \cos 2\theta}{3\theta^2} = \frac{2}{3} \quad \lim_{t \rightarrow 0} \frac{t^2}{(\sin 2t)(\sin 3t)} = \frac{1}{6}$$

$$\lim_{x \rightarrow 0} \frac{\tan 5x}{3x} = \frac{5}{3} \quad \lim_{x \rightarrow 0} \frac{x \sin(-2x)}{(\sin 4x)(\sin 3x)} = \frac{-1}{6}$$

$$\lim_{x \rightarrow \infty} \frac{e^{3x}}{2 + e^{2x}} = +\infty \quad \lim_{x \rightarrow \infty} \frac{2x - \cos 3x}{x^2} = 0$$