

2. Compute each of the following limits and determine the corresponding rate of convergence.

(a) $\lim_{x \rightarrow 0} \frac{e^x - 1}{x}$

(b) $\lim_{x \rightarrow 0} \frac{\sin x}{x}$

(c) $\lim_{x \rightarrow 0} \frac{e^x - \cos x - x}{x^2}$

(d) $\lim_{x \rightarrow 0} \frac{\cos x - 1 + x^2/2 - x^4/24}{x^6}$