

1. Let $f(x) = e^x$. Find the slope of the secant line through the points on the graph $y = f(x)$ for

(a) $x = 0, x = 1$

(b) $x = 0, x = \frac{1}{2}$

(c) $x = 0, x = \frac{1}{10}$

(d) $x = 0, x = \frac{1}{100}$

2. Estimate $\lim_{x \rightarrow 0} \frac{e^x - 1}{x}$