Q1) Find the limits using the indeterminate forms.

(a) \( \lim_{x \to 0} \left( 1 + 2x \right)^{-3/x} \)

(b) \( \lim_{x \to \infty} \left[ \ln 2x - \ln (1 + x) \right] \)

(c) \( \lim_{x \to 0} \left( \frac{1}{x} - \frac{\cos 2x}{x} \right) \)