Show all your work! No calculators, notes, or colleagues are allowed to assist you.

1. Find the limit (algebraically), if it exists:

(a) \[ \lim_{h \to 0} \frac{(3 + h)^{-1} - 3^{-1}}{h} \]

(b) \[ \lim_{t \to 0} \frac{\sqrt{1 + t} - \sqrt{1 - t}}{t} \]
2. Show (using theory from Section 2.3) that \( \lim_{x \to 0} x^4 \cos\left(\frac{2}{x}\right) = 0 \)

3. Prove (using \( \epsilon, \delta \)) that \( \lim_{x \to 1} (3 - 2x) = 1 \)