

C. Prove the inequality

$$7x^{\frac{1}{7}} \geq x+6$$

For $x \in [0, 1]$

D. Prove that the limit.

$$\lim_{x \rightarrow 0} \frac{2x^4 - 3x^3 - 2x^2}{1 - \cos x}$$

exists and evaluate it.