QUIZ 4   **Time: 15min**

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1. Use the ϵ-δ definition of the limit to prove that $\lim_{x \to 2} x^2 + 2 = 6$.

2. Prove that $\lim_{x \to 0} x^4 \cos \frac{2}{x} = 0$.

Each problem is worth 5 points.