MATH 1B
QUIZ 7

Clearly state any tests you use and the conclusions you come to. Answers lacking justification will not receive full credit.

1. Find a counterexample to the following (false) statement.

If $\sum_{n=0}^{\infty} b_n x^n$ is a power series representation of a function $f(x)$, then for all a, $f(a) = \sum_{n=0}^{\infty} b_n a^n$.

2. Find the Maclaurin series of $f(x) = e^{2x^2} - \cos(\pi x/4)$.

TURN PAGE FOR PROBLEM 3 →

3. Find a power series representation of $f(x) = \dfrac{x^2}{5 + x^3}$.