

# *Calculus II Final Exam Review*

## Representations of Functions as Power Series Taylor and Maclaurin Series

1. Find the power series representation for the function  $f(x) = \frac{10}{1 - 64x^6}$  and determine the interval of convergence.
2. Find the first four nonzero terms of the Taylor series for  $f(x) = e^{2x}$  centered at  $a = 4$ . [Assume that  $f$  has a power series expansion. Do not show that  $R_n(x) \rightarrow 0$ .]