

Name:

Due:

Worksheet on Higher Order Approximation

Consider the following problems. Construct the approximation to estimate the unknown value.

1. Use a cubic approximation to estimate $e^{0.1}$. Use a cubic approximation to compute this. As best you can, what is your estimate for the value?
2. Use quadratic approximation to estimate $\cos 35^\circ$.
3. Use cubic approximate to estimate $\ln 1.5$ using $\ln(x + 1)$ as your function centered at $a = 0$ and using $b = 0.5$.