Taylor Series

Reading

Section 11.7

Problems

- Practice Problems: 11.7 7, 9, 13, 29, 31, 37, 57
- Problems to turn in: 11.7 8, 12, 32, 38

Topics to know

1. Relation between coefficients of a series and its derivatives as a function.
2. Definition of Taylor series (theorem 1).
3. Maclaurin series.
4. Refresher on Taylor's theorem (page 505) and the error bound (page 504)
5. Theorem 2 about a case when the function equals its Taylor series.
6. Expansions for sine, cosine (example 2), exponential (example 3)
7. Examples of deriving series: e^{-x^2}, $\ln(1+x)$.