Homework 5

Sections 9.5 & 10.1
Due: 4-15-14

1. Determine the interval of convergence for the following power series:

$$\sum_{n=1}^{\infty} \frac{2^k(x-3)^k}{k(k+1)}.$$

2. Compute the degree three Taylor polynomial for $f(x) = \arcsin(x)$ about $x = 0$.

3. Compute the degree five Taylor polynomial for $f(x) = e^{-x}$ about $x = 1$.