Worksheet 8

1. Find Maclaurin series for following functions
   1. 
   2. 
   3. 
2. Find Taylor series for  about 1:
3. Use known series to find the series for following functions
   1. 
   2. 
4. (optional) Let  be a unit imaginary number, use Maclaurin series of  and  to show that . Hint , ,…
5. Approximate using 3rd order Taylor polynomial about 1, bound the remainder.
6. Approximate using order Taylor polynomial about 1, bound the remainder.
7. Find Maclaurin series for



1. Using Maclaurin series of  find Maclaurin series for

