# Taylor Series Quiz

1. The function has a Taylor series about that converges to for all in the interval of convergence. It is known that , and the th derivative of at is given by for .
2. Write the first four nonzero terms and the general term of the Taylor series for about .
3. The Taylor series for about has a radius of convergence of 2 . Find the interval of convergence. Show the work that leads to your answer.
4. The Taylor series for about can be used to represent as an alternating series. Use the first three nonzero terms of the alternating series to approximate .

1. Use the Lagrange error bound and part (c) to give an interval approximation for .
2. Use the Alternating series error bound to give an interval approximation for f(1.2)
3. Write the first four non-zero terms of the Taylor series for
4. Write the first four non-zero terms of the Taylor series for