1. (taylorerror:expatapoint)
   Find a bound on the error of the approximation of $e^{\frac{1}{3}}$ by $1+\frac{1}{3}+\frac{1}{3^2 2!}+\frac{1}{3^3(3!)}$.

2. (taylorerror:sinconvergence)
   Find a bound for $R_n^0 \sin(x)$ and use this to show that $T_n^0 \sin(x) \to \sin(x)$ for all x as $n \to \infty$.

3. (taylorerror:sin3convergence)
   Find a bound for $R_n^0 \sin(3x)$ and use this to show that $T_n^0 \sin(3x) \to \sin(3x)$ for all x as $n \to \infty$.

4. (taylorerror:exp2convergence)
   Find a bound on $R_n^0 e^{2x}$ and use this to show that for every x, $T_n^0 e^{2x} \to e^{2x}$ as $n \to \infty$.

5. (taylorerror:sincosconvergence)
   Find a bound on $R_n^0 (\sin(x)+\cos(x))$ and use this to show that $T_n^0 (\sin(x)+\cos(x))$ converges to $\sin(x)+\cos(x)$ as $n \to \infty$.

6. (taylorerror:cosgoodenough)
   Find a bound on $|R_n \cos(x)|_{x=1}|$ and use this information to find a decimal approximation of $\cos(1)$ with an error of at most .1.