1). Consider the fourth Maclaurin polynomial of $f(x)=e^x$:

$$T_4(x)=1+x+\frac{x^2}{2!}+\frac{x^3}{3!}+\frac{x^4}{4!}$$

a). Give an upper bound for the error $R_4(x)$ on $[-4,4]$.

b). Find an interval $[-a,a]$ on which:

$$|R_4(x)|\leq 0.001.$$