

**Math 166: Honors Calculus II**

Name: \_\_\_\_\_

**Quiz 5** *Feb. 24, 2000*

1. Define the Taylor polynomial  $T_n f(x; a)$  of a function  $f(x)$  centered at the point  $a$ .

2. Show that  $\frac{d}{dx} T_n f(x) = T_{n-1} f'(x)$ .

3. Determine the Taylor polynomial  $T_{90}\left(\frac{1+x^{30}}{1+x^{60}}\right)$ .