## Quiz 6 Math 341

Name

Let $f(x)=x^{3}-2 x^{2}-x+2$
(a) What is the 3rd Taylor polynomial $P_{3}(x)$ for $f$ at $x_{0}=1$ (i.e., in powers of $x-1$ ).
(b) Using the formula for the remainder $R_{n}(x)=\frac{f^{n+1}(c)}{(n+1)!}\left(x-x_{0}\right)^{n+1}$ explain why $R_{3}(x)=0$.

