

Math 2260 Quiz 21

Name _____

Points will be deducted for untidy or disorganized answers

1. (5 points) Let $f(x) = \sqrt{1+x}$.
 - (a) Find the quadratic polynomial $P_2(x)$ which best approximates the function $f(x)$ at 0.
 - (b) How accurately does $P_2(x)$ approximate $f(x)$ for $0 \leq x \leq 1/10$?
 - (c) For what values of $x \geq 0$ can we be sure that the polynomial $P_2(x)$ will approximate $f(x)$ to within $1/2$?