9/13/2000 MA303 Calculus I Name:_____
Dr. Lunsford Quiz 3 (20 Points Total)

I. Find the indicated limits. If a limit does not exist indicate so by writing DNE for your answer. Clearly indicate your answers. (2 each – 4 total)

(a) $\lim_{z\to 3}\frac{z-3}{z^2-1}$

(b) $\lim_{x\to \frac{p}{2}}\frac{\sin x}{x}$

II. Find the indicated limits. If a limit does not exist indicate so by writing DNE for your answer. You must show at least one intermediate step on each problem. Clearly indicate your answers. (4 each – 16 total)

(a) $\lim_{x\to 1}\sqrt{x^2+4x-1}$
(You must show your substitution on this problem)

(b) $\lim_{x\to 0}\frac{\sqrt{3+x}-\sqrt{3}}{x}$

(c) $\lim_{w\to 2}\frac{w-2}{w^2+w-6}$

(d) $\lim_{z\to 1}\frac{1-z^2}{z-1}$