

MATH 231
Quiz 4

Name _____
10.02.2001, a palindrome

WRITE CLEARLY AND SHOW ALL YOUR WORK. YOU MAY USE A CALCULATOR.

1. Give a δ - ϵ proof of

$$\lim_{x \rightarrow 1} (x^2 - 2x + 3) = 2.$$

MORE →

2. Suppose f and g are functions such that $\lim_{x \rightarrow 3} f(x) = 5$, $\lim_{x \rightarrow 4} f(x) = 2$, and $\lim_{x \rightarrow 3} g(x) = -6$. Calculate the limits below, if possible. If it is not possible, explain why.

(a) $\lim_{x \rightarrow 3} (2f(x) - 3g(x))$

(b) $\lim_{x \rightarrow 3} f(g(x))$

(c) $\lim_{x \rightarrow 7} f(x)$