

Math 2554 Quiz: § 4.6-4.7
Tues 18 Nov 2014

Name: _____

You have 20 minutes to complete this quiz. Good luck!

1. Evaluate the following limits using analytical methods, including, possibly, L'Hôpital's Rule. Analytical methods DO NOT include plugging in test values – you must use limit laws and algebra.

(a) $\lim_{x \rightarrow \infty} \left(x - \sqrt{x^2 + 4x} \right)$

(b) $\lim_{x \rightarrow 0^+} (3x)^{3x}$

MORE ON THE NEXT PAGE →

2. Determine whether the Mean Value Theorem applies to the function

$$f(x) = x^2 - 4x + 3$$

on the interval $[0, 3]$. If so, then find the point(s) guaranteed to exist by the Mean Value Theorem.