

# Math 2315 - Calculus II

Quiz #11 - 2007.11.05

Name: \_\_\_\_\_

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Define the sequence  $\{a_n\}$  by

$$a_n = \frac{3n^2}{n^2 + 2}.$$

1. Show that  $\{a_n\}$  is strictly increasing.

2. Find an upper bound for  $\{a_n\}$  and prove that it is an upper bound (you do NOT have to use induction).