QUIZ #7: CALCULUS 1A (Stankova)
Wednesday, March 10, 2004
Section 10:00–11:00 (Voight)

Name:

Please complete the following problem(s) in the space provided. You may *not* use a calculator. You will have 15 minutes to complete the quiz.

Please include all relevant intermediate calculations and explain your work when appropriate.

Problem 1. *Evaluate*

$$\lim_{x \to e} \frac{e^{\ln x} - e}{x - e}.$$

Explain your work.

Problem 2. *Evaluate*

$$\lim_{x \to 0} \frac{\sin((3+x)^2) - \sin 9}{x}.$$

Explain your work.

QUIZ #7: CALCULUS 1A (Stankova)
Wednesday, March 10, 2004
Section 11:00–12:00 (Voight)

Name:

Please complete the following problem(s) in the space provided. You may *not* use a calculator. You will have 15 minutes to complete the quiz.

Please include all relevant intermediate calculations and explain your work when appropriate.

Problem 1. *Sketch the graph of f by hand and use your sketch to find the absolute (global) and local maximum and minimum values of f.*

$$f(x) = \begin{cases} 2x^2 - 1, & \textit{if } -1 \leq x < 0; \\ 1 - (x-1)^2, & \textit{if } 0 \leq x \leq 2. \end{cases}$$