M467
Spring 2005

Quiz 1

Name:_____

1. Use Matlab to determine the definitions of the following special symbols:

   (a) `Inf`, `-Inf`

   (b) `NaN`

   (c) `realmax`

   (d) `realmin`

2. Explain why the following results make sense (You might give an example using limits). Attach your solutions.

   (a) $\frac{1}{0}$ returns `Inf`, $\frac{-1}{0}$ returns `-Inf`

   (b) `Inf`$\times$`Inf` returns `Inf`

   (c) `Inf`/`Inf` returns `NaN`

   (d) `Inf` + `Inf` returns `Inf`

   (e) `Inf - Inf` returns `NaN`

   (f) $\frac{0}{0}$ returns `NaN`

3. Problem 10, p. 17: First, think about which of the following statements could result in a nonzero answer. Check your predictions in Matlab, and comment on the results:

   (a) `(100+1/3)-1/3-100`

   (b) `(1/3+100)-100-1/3`

   (c) `(1/3+100)-(100+1/3)`