

# Reading Quiz 07 for Advanced Calculus

Name : \_\_\_\_\_ Student ID # : \_\_\_\_\_ Score : \_\_\_\_\_

Read section 1 of chapter 5.

0. Compute the limit  $\lim_{x \rightarrow 0} \frac{(1+x)^{1/x} - e}{x}$  (write your answer on the reverse side of this paper).

1. Write down the following definitions.

(a) Definition 5.1

(b) Definition 5.2

(c) Definition 5.3

2. State Theorem 5.1 and prove it by using your own language in Chinese.