

Maple Output 2D Math 2D Output
Math 126: Calculus II
Quiz 7 October 24, 2000

Name: _____
Section: _____

1. Find the limit of the sequence

$$a_n = \left(\frac{x^n}{2n+1} \right)^{1/n} + \ln \left(1 + \frac{1}{n} \right)^n$$

carefully **showing your work** and **all** important steps.

2. Calculate $\sum_{n=1}^{\infty} e^{-2n}$, carefully **showing your work** and **all** important steps.

Bonus (3 points) Here is a snapshot of Judy's Maple session. `active1da := i - i, sin(i)/i;`
`inert2da := proc (i) options operator, arrow; sin(i)/i end proc;`

$$a := i \rightarrow \frac{\sin(i)}{i}$$

`active1dseq(a(i),i=1..5):`

`active1da(10):`

She inadvertently suppressed the output of the second and third command.

a. What is the output from the second command? **Do not** use a calculator. Give an exact answer.

b. What is the output from the third command? **Do not** use a calculator. Give an exact answer.