

SFU - UBC - UNBC - UVic  
Calculus Challenge Exam  
June 3, 2004, 12 noon to 3 p.m.  
Host: SIMON FRASER  
UNIVERSITY

Student ID Label

Student signature

### INSTRUCTIONS

1. Show all your work. Full marks are given only when the answer is correct and is supported with a written derivation that is orderly, logical, and complete. Part marks are available in every question.
2. Calculators are optional, not required. Correct answers that are calculator ready, like  $3 + \ln 7$  or  $e^2$ , are preferred.
3. Any calculator acceptable for the Provincial Examination in Principles of Mathematics 12 may be used.
4. A basic formula sheet has been provided. No other notes, books, or aids are allowed. In particular, all calculator memories must be empty when the exam begins.
5. If you need more space to solve a problem on page  $n$ , work on the back of page  $n - 1$ .
6. CAUTION - Candidates guilty of any of the following or similar practices shall be dismissed from the examination immediately and assigned a grade of 0:
  - (a) Using any books, papers or memoranda.
  - (b) Speaking or communicating with other candidates.
  - (c) Exposing written papers to the view of other candidates.

Question	Maximum	Score
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
Total	100	