

Math 101 (A01-A04)

Test 1

Version: A

January 31, 2017

Time: 120 minutes

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Family name: \_\_\_\_\_

Tutorial section: \_\_\_\_\_

Given name: \_\_\_\_\_

Student ID: V00\_\_\_\_\_

Test Score		
Question	Points	Score
Multiple Choice	18	
Question 10	4	
Question 11	5	
Question 12	3	
Question 13	4	
Question 14	6	
<b>Total</b>	<b>40</b>	

Instructions:

- Before beginning the test, enter your name and ID number on this cover and on the bubble sheet. Be sure to fill in the bubbles for your ID number.
- The only items you should have with you are writing implements, your OneCard, and your calculator. The only calculators permitted are Sharp EL-510R, Sharp EL-510RN, and Sharp EL-510RNB. No notes or any other aids are permitted. You are responsible for ensuring that you do not have any prohibited items with you during the test.
- Write out your solutions carefully and completely on the question paper provided. Marks will not be awarded for final answers that are not supported by appropriate work. This includes multiple choice problems.
- For multiple choice questions, the exact answer may not appear as one of the options. Solve the question, then select the answer *closest* to your answer. If your answer is exactly equidistant from two options, choose the larger answer.
- If you require extra space, use the backs of test pages or the blank page at the end of the test. Be sure to clearly indicate where you have done so. No outside paper is permitted.
- This test has 12 pages, including this cover and the blank page at the end.
- Fill in "A" in the "Form" field of the bubble sheet now.



(2) 1. Find  $\int_0^2 x(x^2 - 1) dx$ .

A. -4   B. -3   C. -2   D. -1   E. 0

F. 1   G. 2   H. 3   I. 4   J. Undefined or impossible to calculate

(2) 2. Find  $\int_1^4 \frac{e^{\sqrt{x}}}{2\sqrt{x}} dx$ .

A. 0   B. 1.5   C. 3   D. 4.5   E. 6

F. 7.5   G. 9   H. 10.5   I. 12   J. Undefined or impossible to calculate



(2) 3. Let  $f(x) = \cosh(\sqrt{x})$ . Find  $f'(1)$ .

A. -2   B. -1.5   C. -1   D. -0.5   E. 0

F. 0.5   G. 1   H. 1.5   I. 2   J. Undefined or impossible to calculate

(2) 4. Find  $\int_{\ln(2)}^{\ln(4)} \sinh(x) dx$ .

A. 0.1   B. 0.3   C. 0.5   D. 0.7   E. 0.9

F. 1.1   G. 1.3   H. 1.5   I. 1.7   J. Undefined or impossible to calculate



(2) 5. Find  $\int_{\pi/2}^{\pi} \theta \sin(\theta) d\theta$ .

A. 0 B. 1 C. 2 D. 3 E. 4

F. 5 G. 6 H. 7 I. 8 J. Undefined or impossible to calculate

(2) 6. Find  $\int_{-4}^0 \frac{1}{4+x^2} dx$ .

A. -2 B. -1.5 C. -1 D. -0.5 E. 0

F. 0.5 G. 1 H. 1.5 I. 2 J. Undefined or impossible to calculate



(2) 7. Find  $\int_0^{\pi/2} 2017 \sin^{101}(x) \cos^3(x) dx$

A. -2000   B. -500   C. -2   D. -0.25   E. 0

F. 0.25   G. 2   H. 500   I. 1000   J. Undefined or impossible to calculate



(2) 8. Find  $\int_{-\infty}^{\infty} \frac{2x}{x^2+1} dx$ .

A. -4   B. -3   C. -2   D. -1   E. 0

F. 1   G. 2   H. 3   I. Diverges   J. Converges, but value is impossible to calculate

(2) 9. Find  $\int_0^{\infty} 2xe^{-x^2} dx$ .

A. -4   B. -3   C. -2   D. -1   E. 0

F. 1   G. 2   H. 3   I. Diverges   J. Converges, but value is impossible to calculate