

# Quiz 2      Math 132      Fall 2019

Name: \_\_\_\_\_

ID number: \_\_\_\_\_

Content: This practice quiz covers sections 4.6 and 5.1.

- Use  $u$ -substitution to solve integrals.
- Use an integral to find the area between two curves.

Directions:

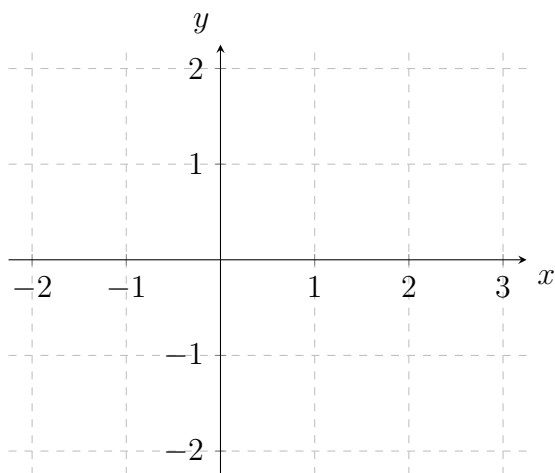
- You have 20 minutes to complete this quiz.
- You are allowed one hand-written sheet of notes on regular 8.5-11 paper, front and back.
- You are allowed a non-graphing calculator.
- Show all of your work.
- If you have any questions, raise your hand.

Question	Points	Score
1	10	
2	10	
Total:	20	

1. (10 points) Evaluate the integral. You may leave your answer in an un-simplified form.

$$\int_1^2 x^3 \sqrt{1-x^2} dx$$

2. Sketch and shade the region bounded by  $y = \frac{1}{2}x$ ,  $y = 0$ , and  $y = x - 1$ .



- (a) (5 points) Write an integral (or integrals) with respect to  $y$  that computes the area of this region.
- (b) (5 points) Write an integral (or integrals) with respect to  $x$  that computes the area of this region.