

# Practice Quiz      Math 132      Fall 2019

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

Content: This practice quiz covers sections 4.2, 4.3 and 4.4.

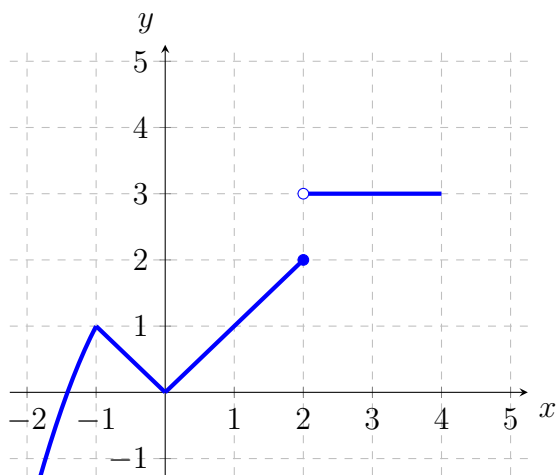
- Translate sums in to sigma notation.
- Evaluate expressions written in sigma notation.
- Approximate areas under a curve using a Riemann sum.
- Explain how a definite integral computes area under a curve.
- Use graphs and signed area to understand the value of a definite integral.

Directions:

- You have 15 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	9	
2	10	
Total:	19	

1. (9 points) Use the graph of  $f(x)$  to compute the definite integrals.



1.  $\int_{-1}^1 f(x) dx = \underline{\hspace{2cm}}$       2.  $\int_0^4 f(x) dx = \underline{\hspace{2cm}}$       3.  $\int_2^0 f(x) dx = \underline{\hspace{2cm}}$

2. (10 points) Using Sigma notation to write an expression that approximates the area under the curve  $y = e^{\sin(x)}$  on the interval  $[0, 3]$  using the midpoint rule with 100 rectangles.