

Quiz 10

● Graded

Student

Colin Cano

Total Points

8 / 10 pts

Question 1

1

5 / 5 pts

✓ - 0 pts Correct: Rectangles are drawn with left endpoints, estimated area is 8.

Question 2

2

3 / 5 pts

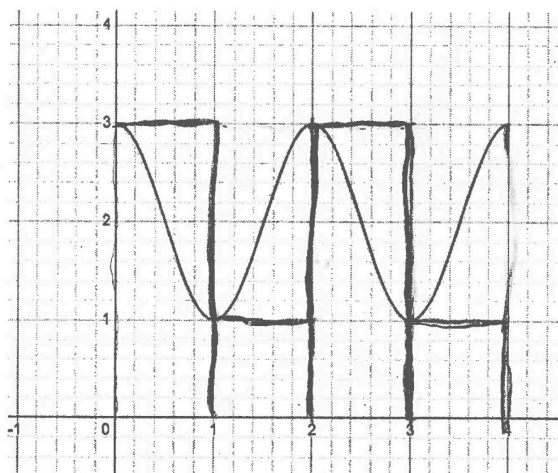
Elements are incorrect. Select all that apply.

✓ - 2 pts Student does not use the Riemann sum to solve the integral.

Name: Colin Cano

Student ID: _____

1. Use four rectangles to estimate the the area under the given curve using left endpoints. Draw the rectangles on the figure below.



$$n=4$$

$$\frac{4-0}{4} = 1$$

$$f(x_0) = 3$$

$$f(x_1) = 1$$

$$f(x_2) = 3$$

$$f(x_3) = 1$$

$$\sum_{i=1}^4 f(x_i) \Delta x = (3 \cdot 1) + (1 \cdot 1) + (3 \cdot 1) + (1 \cdot 1) = 8$$

2. From the textbook we know that

$$\sum_{i=1}^n i = \frac{n(n+1)}{2} \quad \Delta x = a + i \cdot \Delta x$$

Use this fact to calculate the following integral, which has already been translated into a Riemann Sum:

$$\int_0^2 4x \, dx = \lim_{n \rightarrow \infty} \sum_{i=1}^n \frac{2}{n} \cdot 4 \cdot \frac{2i}{n}$$

$$\int_0^2 (4 \cdot \frac{2}{n} \cdot 2) = 8$$

SCRATCH PAPER