Student ID:

Student Name:

Serial Number:

Math 102, Section 16
Summer 2017, Term 162

Quiz 1
Version A

Instructions: Show Your Work!

1. (3 pts) Estimate the area under the graph of the function

$$f(x) = \frac{x}{x-1}$$

from $x = 2$ to $x = 8$ using three approximating rectangles and midpoints.

2. (3 pts)

$$\text{If } g(x) = \int_x^2 \ln\left(\frac{2}{t}\right) dt, \text{ find } g'(x).$$

3. (4 pts) Using the definition of the definite integral, find the value of the following limit

$$\lim_{n\to+\infty} \sum_{i=1}^{n} \frac{2}{n}\sqrt{4+\frac{3i}{n}}.$$

Student ID:

Student Name:

Serial Number:

Math 102, Section 38
Summer 2017, Term 162

Quiz 1
Version B

Instructions: Show Your Work!

1. (3 pts) Estimate the area under the graph of the function

$$f(x) = \frac{1}{x+1}$$

from $x = 1$ to $x = 3$ using three approximating rectangles and left endpoints.

2. (3 pts)

$$\text{If } g(x) = \int_x^{x^2} \frac{\sin(2t)}{t^2} dt, \text{ evaluate } g(1) + g'(1).$$

3. (4 pts) Evaluate the integral

$$\int (x+2)\tan(x^2+4x)dx.$$