Fall, 2018 Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

MAT 162001 Gurganus

Directions: Show all work for partial credit purposes. You may use a graphing calculator and any notes you may put on one side of an 8.5 by 11 inch sheet of paper. Otherwise the test is closed book. When you turn in your test, staple your notes to this sheet.

For 1-4, calculate the following:

1.

2. (x)dx

3.

4.

5. Estimate  using the Midpoint Rule with n = 4. Write the sum; you do not have to evaluate the sum.

6. Calculate the following; it the integral does not converge, state “does not converge.”

a.

b.

7. Tell why the following converge or diverge:

1. b.

8. Calculate .

9. Write the partial fraction decomposition form for the following rational function. You do not have to solve for the constants.