

**MATH 2320** Test 1. Part 2

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

This is the second part of test 1. Please write clearly up answers to the questions. Show your **work**. A correct answer without correct work will not count.

Scan your work and email to instructor by 11:25am.

1. Using the **definition** of the integral compute

$$\int_1^3 5x - 4 \, dx.$$

2. Let acceleration be given by  $a(t) = 6t - 12e^{2t}$ . And let  $v_0 = 4$  and  $s_0 = -3$ . Find  $v$  and  $s$ . What is the velocity when  $t = 3$  sec.

3. Find the volume of the solid formed when revolving the region bounded by  $y = 2x$  and  $y = 6 - x$  and the  $x$ -axis around the  $x$ -axis.