Quiz 6	Name:
MATH 241 (Spring 2023)	
03/30/2023	Section:

Instructions: You need to show all your work. There will be no credits to answers without any explanation.

**Problem 1.** (5 points) Let *R* be the rectangular region bounded by the lines x = -1, x = 2, y = 0, and y = 2. Find  $\iint_R 4xy \, dA$ .

Problem 2. (5 points) Set up in polar coordinates (do not need to evaluate) the double integral

$$\iint (x-3y) \ dA$$

where R is the region in the upper half plane enclosed by the circle  $x^2 + y^2 = 16$  and the lines y = x and y = -x.