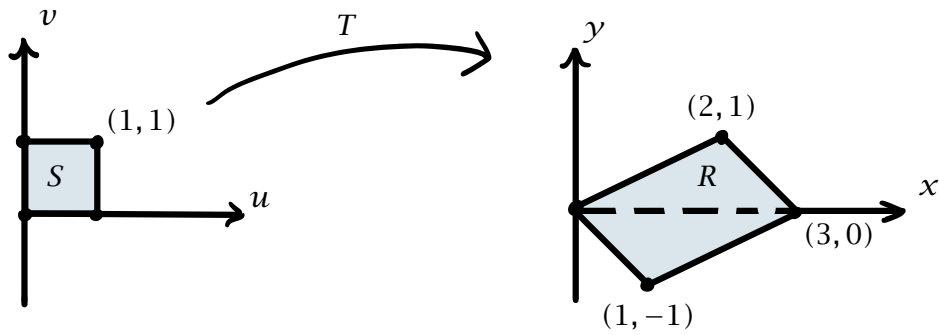


Consider the region R in \mathbb{R}^2 shown at right.



1. Find a transformation T from the unit square $S = [0, 1] \times [0, 1]$ to R . (3 points)

2. Use your answer in (a) to evaluate the following via an integral over S . (4 points)

$$\iint_R xy \, dA$$