

Quiz 5

Form A

Name _____

Math 130B, 5 PM

Please justify all your answers

April 27, 2022

Please also write your full name on the back

1. Two dice are rolled. Let X and Y denote, respectively, the largest and smallest values obtained. Compute the conditional mass function of Y given $X = i$ for $i = 1, 2, \dots, 6$. *Your answer should be six functions $f(y|1)$, $f(y|2)$, and so on.*

2. If X and Y are independent uniform random variables on $(0, 1)$, compute the joint density of U and V where.

$$U = X + Y, \quad V = X/Y.$$