MATH 371 Name :_____

Practice problem 1 November 1, 2019

This one would have made it onto the test if there were more time.

1. A 3-side die has the numbers 1, 2 and 5 on it. These occur with probabilities .25, .35 and .4 respectively.

   (a) Give a formula for the c.d.f. (the distribution function) of X: *number rolled on this 3-sided die.*

   (b) Use the c.d.f. to find the probability that you roll a number between 2 and 5 inclusive. Check your answer.

   (c) Suppose you have to pay \$2 to enter a round of a game involving this die. After paying \$2 to enter, you earn 50 cents for each dot that shows up on the die. Letting C be the earnings in one round of this game, find the expected value and variance of C.