MATH 10B
Section 205
GSI: Theo McKenzie

Quiz 13

Student:
SID:
Tue 4/30/19

True/False - No explanation needed. (For each: 1 point if correct, 0 points if not answered, -1 points if incorrect)

1. Call f_k the PDF of χ^2_k. As k increases $f_k(0)$ decreases. True/False
2. $\Gamma(\frac{1}{2}) = \sqrt{2\pi}$ True/False

Problems - Needs justification.

1. I have a 4 sided die with sides 1-4, which I believe is fair. I roll it 100 times, obtain the four numbers in frequencies

$Number$	$Frequency$
1	35
2	15
3	30
4	20

If my alternate hypothesis is that the die is not fair with confidence level $\alpha = 0.01$, can I reject my null hypothesis? (10 points)