MATH 10B with Prof. Stankova
DIS 102; TTh 8:00∼ 9:30am
GSI: Seewoo Lee

Quiz 9

Student:
SID:
Tue 4/2/19

True/False - No explanation needed. (2pts)

1. A PDF $f(x)$ cannot have values greater than 1. True/False
2. There is a distribution fails to have a well-defined mean μ, but has a well-defined median m. True/False

Problems - Need justification. No justification means **zero**!

1. Let X be a binomial distribution with $n = 3$ and $p = 1/3$. Find CDF of X and draw a graph of it. (5pts)

2. Let $F(x)$ be a CDF defined as

$$F(x) = \begin{cases} 1 - e^{-x^2} & x \geq 0 \\ 0 & \text{otherwise} \end{cases}$$

Find a corresponding PDF and compute $P(X \geq 1)$. (5pts)