MATH 10B with Prof. Stankova

DIS 106; TTh 9:30~11:00 GSI: Seewoo Lee

Quiz 2

Student: SID:

Tue 2/5/19

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

- 1. 0! = 0. True/False
- 2. The binomial coefficients first increase from left to right along a row in Pascal's triangle, but then they decrease from the middle to the end of the row. True/False

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

1. How many numbers must be selected from the set  $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$  to guarantee that at least one **pair** of these numbers add up to **7**? (5pts)

2. How many ways are there for 5 women and 5 men to stand in a line so that no two men stand next to each other and no two women stand next to each other? (5 points)