Circle True or False or leave blank. (1 point for correct answer, -1 for incorrect answer, 0 if left blank)

- 1. True False There is only one way to solve any counting problem.
- 2. True False Whenever the problem says "at least", then we have to use complementary counting.

Show your work and justify your answers. Please circle or box your final answer.

3. (10 points) (a) (3 points) How many different license plates are there if a license plates consists of 3 letters followed by 3 or 4 numbers (e.g. AAA111 or AAA1111).

(b) (4 points) How many numbers less than or equal to 300 are divisible by 5 or 6?

(c) (3 points) How many ways are there to roll 6 6-sided die and roll a 6 at least once?