

Retake 7: Permutations and combinations

2016

MAT 123, SUMMER

NAME:

1. (10 points) (a) Ten athletes compete in a marathon. Prizes are given for first, second, and third place. In how many different ways can the prizes be awarded?
- (b) An urn contains six white balls and three green balls. How many ways are there to choose three green balls from the jar?

2. (10 points) (a) How many ways are there to draw three cards from a deck?

(b) How many ways are there to draw three hearts?

(c) If you draw three cards from a deck, what is the probability that you draw three hearts?