

Board Questions

First Session, Sep 9th

1 Olympics

There are 5 competitors in the 100m final. How many ways can gold silver and bronze be awarded?

2 Coin flips

- a) Count the number of ways to get exactly 3 heads in 10 coin flips.
- b) For a fair coin, what is the probability of exactly 3 heads in 10 flips.

3 Poker

Deck of 52 cards:

- 13 ranks: 2,3, . . . , 9,10,J,Q,K,A
- 4 suits: ♥, ♠, ♦, ♣

Poker hands:

- Consists of 5 cards
- A *one-pair* consists of two cards having one rank and the remaining three cards having different ranks
- Example: {2♥, 2♠, 5♥, 8♣, K♦}

Questions

- a) How many different 5 card hands have exactly one pair?
Hint: practice with how many 2 card hands have exactly one pair.
Hint for hint: use the rule of product.
- b) What is the probability of getting a one pair poker hand?