Solutions to Quiz 1

(5 marks) 1. Player A flips 5 coins in order to get 3 heads and Player B flips 4 coins in order to get 2 heads. Calculate their individual probabilities of success and decide who has the better chance.

Solution: In case of player A, the probability is given by

$$\binom{5}{3}\frac{1}{2^5} = \frac{5}{16}$$

In case of player B, the probability is given by

$$\binom{4}{2}\frac{1}{2^4} = \frac{3}{8} = \frac{6}{16}$$

The second case is slightly better.