

Proof For Week 11

Due on Thursday, November 22th

Here is a fun problem on probability.

As usual, this weekly proof will be marked out of 2. Each part is worth one mark.

- (a) I throw a sequence of three darts at a dartboard, aiming for the centre. Assume each one of my throws is equally skillful, that is, I don't have a tendency to get better (or worse!) with each throw. Suppose that my second throw is better than my first. What is the probability that my third throw will be better than my second?
- (b) Is this problem really the same as the Monty Hall problem? If so, explain carefully why these two problems are identical. If not, explain how they are different.