Board Questions

First Session, Sep 12th

1 Rolling Dice

1. Roll your 20-sided die.
2. Check if all rolls at your table are distinct.
3. Define the sample space and probability function for this experiment.
4. Compute the probability that all rolls are distinct.

2 Evil Squirrels

Setting:

- 1.000.000 squirrels
- 100 of them are evil
- The proposed alarm goes of when presented with an evil squirrel 99% of the time
- It also goes of 1% of the time when presented with a nice squirrel

Questions:

a) If a squirrel sets of the alarm, what's the probability that it is evil?

b) Based on this, should the evil squirrel detector be acquired?

3 Monty Hall

Setting:

- There are 3 doors with a car behind one door and a goat behind each of the other two
- After the candidate has chosen, one of the doors with a goat is opened
- The candidate is given the choice to switch doors or to stick with his original choice

Question Based on probabilistic calculations, should the candidate switch doors or stick with his initial choice after one of the goats has been revealed?