

8. Suppose you have a bankroll of \$500 and play \$2 at a time on Don't Pass in craps. (This is an even money bet with the chance of winning equal to 0.493.)

(a) What is the chance you will reach \$550 *before* going broke?

(b) If you play until you go broke, about how many plays can you expect to make?

9. A jar contains 5 red marbles, 6 blue marbles and 4 black marbles. You reach in and randomly select 4 marbles. What is the chance that exactly two of them are blue (and the other two are not blue)?