



Problem of the Week

Problem B

Let the Game Begin!

Parvinder and Carlos are each rolling a standard six-sided die, with numbers 1 to 6 on its sides, to see who gets to go first in their game. The person who rolls the lower number gets to go first. If they tie, they roll again.

- (a) What is the theoretical probability that Parvinder will roll a number lower than Carlos on their first roll? HINT: What are the possibilities for Carlos' roll if Parvinder rolls a 1? a 2? a 3?
- (b) What is the theoretical probability that Parvinder will roll a number greater than Carlos on their first roll?
- (c) Is this a fair way to determine who goes first?

