



Problem of the Week

Problem D

Keep On Rolling

The dice shown below are unusual. A usual six-sided die would have the numbers 1, 2, 3, 4, 5 and 6 on the sides. These dice, however, are unusual because the numbers on the other three sides are 2, 7 and 9.

Two of these unusual dice, one red and one blue, are rolled and the numbers on the upper faces are added together. A winning roll occurs when the sum is either a perfect square or a prime number. (A prime number has only two factors, 1 and itself.)

Determine the probability that you win on any particular roll.

