Problem of the Week
Problem C
Just Sum Dice

Ahmik created a game for his school’s carnival where players roll two dice and
find the sum of the two numbers on the top faces. If this sum is a perfect square
or a prime number, they win a prize. To make it more interesting, Ahmik made
the two dice using a 3D printer so that they each have the numbers 1, 2, 3, 5, 7,
and 9 on their faces. One of the dice is purple and the other is green.

What is the probability that a player will win a prize after rolling the dice once?

Note:
A square of any integer is called a perfect square. The number 25 is a perfect
square since it can be expressed as $5^2$ or $5 \times 5$.
A prime number is an integer greater than 1 that has only two positive divisors;
1 and itself. The number 17 is prime because its only positive divisors are 1 and
17.