

A Bit of a Dicey Problem

We see that we obviously have more chance of getting some totals than others. Like:

4-1, 3; 2, 2

While 2-1, 1.

For the ~~maximum~~ number of times with the most chance, every number must have its counterpart that adds up to that number. This means that if the two extreme numbers have counterparts the rest will also:

$$6+1=7, 2+5=7, 3+4=7$$

We see that every number on the dice has a counterpart that adds up to seven.

The sum with the maximum ^{chance to appear} is seven.

The same logic applies to the ten-sided dice:

$$10+1=11, 9+2=11, 8+3=11, 7+4=11, 6+5=11.$$

Here the sum with the maximum ~~number~~ of chance is 11.

We see that for ^{two} an n -sided dice, the sum with the maximum chance is $n+1$.