

# Dicey Operations



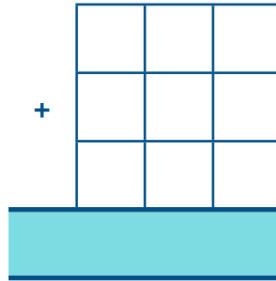
Find a partner and a die (preferably 0 - 9 but if you don't have one you can use a 1 - 6 die).

Each of you draw an addition grid like the one on the right.

Take turns to throw the die and decide which of your cells to fill in.

Throw the die nine times each until all the cells are full.

Whoever has the sum closest to 1000 wins.



nrich.maths.org

31 Sofia 4.5.2025

first, I got a 3 and I put it in the hundreds place because if you get a big number next, you still have space to put the big number at the ones place, then it won't be too big.

3		

you also want the number to be bigger so if you already put two small numbers, you have to put a big number next.

---

3	8	

Second, I got a 8 and I put it on the ones place because if the ones place has more than ten, you will add a one to the tens place and if the tens place doesn't have enough to make a ten, it will become big and I want it to be not too big and not too small and it is just right.

---

3	6	8

third, I rolled a 6 and I put it on the tens place because if it doesn't have enough to make ten, it doesn't affect the hundreds place. But if I notice that it will affect the hundreds place, I will put a smaller number onto the hundreds place next.

---

fourth, I rolled a 1 and I put it on the ones place because I already put a big number on the ones place so if I put a big number again, it will be too big so you will not win.

3	6	8
		1

fig. I rolled a three and I put it on the hundreds place because if I rolled a 2 and I put it there, it can be a 9 if the tens place has enough to make ten and there is a really high chance it will be enough to make ten so it will help me

3 6 8 Win. I had a really high  
 +3 1  
 7

At my last roll, I won the game and my grid was like this and my partner's was like this and my grid's number was closer

3 6 8  
 3 5 1 - my grid  
 2 7 7  
 9 9 6

2 7 1  
 4 0 2  
 2 7 7  
 9 5 0

so I won the game and my strategy is if you try to

to make 8 in the hundreds place and 19 in the tens place so if you even have enough in the ones place to make ten, it will still be very close to 1000.

