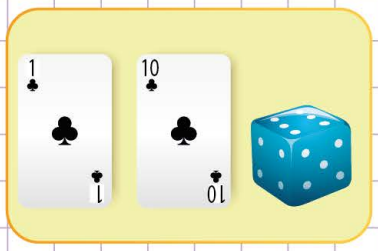
Name: ..... Class: .....

Compound events: find the number of sums

1. **You pick a card, roll a die, and find the sum. How many different sums are possible?**
   Draw a tree diagram, then find the sum on each branch.
   The first event has 2 outcomes 1 and 10



2. **I spin the spinner shown below, roll a 6-sided die, and find the sum. How many different sums are possible?**

3. **How many different sums are possible if you flip a quarter four times and find the sum?**

4. **What will be the different possible sums if I roll a 12-sided die twice and find the sum?**

5. **James picks a card from 3 cards, rolls an 8-sided die, and finds the sum. How many different sums are possible?**

6. **How many different sums are possible if you flip a penny three times and find the sum?**

7. **What will be the different possible sums if I roll a 8-sided die thrice and find the sum?**

8. **Jonas picks a card from 2 cards, rolls an 8-sided die, and finds the sum. How many different sums are possible?**

Solution

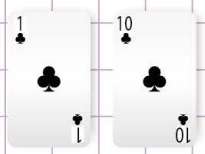
Name: ..... Class: .....

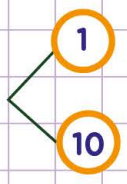
Compound events: find the number of sums

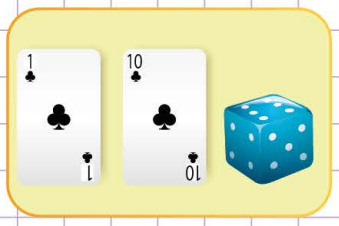
You pick a card, roll a die, and find the sum. How many different sums are possible?

Draw a tree diagram, then find the sum on each branch.

The first event has 2 outcomes 1 and 10

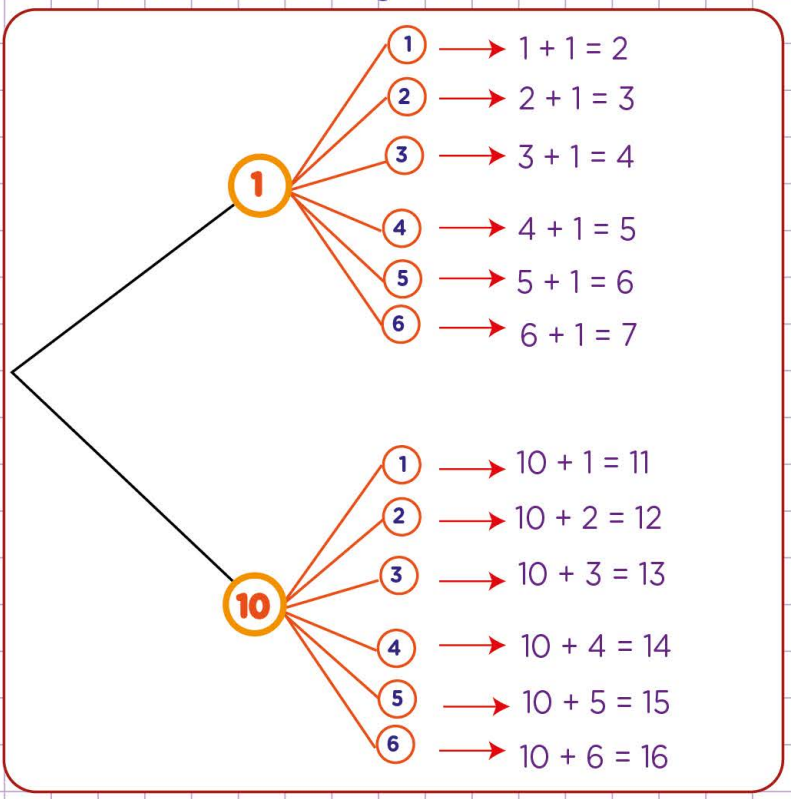






The second event has 6 out comes: 1, 2, 3, 4, 5, and 6.

Now make the tree diagram



Look at the sum on each branch, the possible sums are all the numbers from 2 to 16.

So, there are 12 possible different sums.