



ADDITION AND SUBTRACTION – LEVEL 2: SHUT THE BOX

Materials:

Two dice

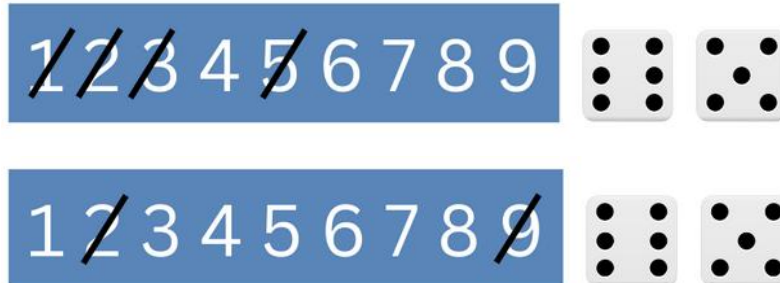
Pencil and paper

Instructions:

Each player writes the numbers from 1 to 9 on a piece of paper.

To start a turn, a player finds the sum of the roll of two dice. Using only numbers that have yet to be crossed out, the player crosses out a group of one or more numbers that add up to that sum. If this can't be done, nothing changes. A player may decide in advance to use only one die for a roll. The first player to get all numbers crossed out wins.

For example, on this first turn, a player may cross out a roll of 11 in various ways:



Variations:

One way to vary this game is to use a larger range of numbers, such as going to 10 or 12.

Another way is to give each player a single turn that will consist of multiple rolls. The turn continues with new rolls until the first time the player is stuck. At the end, the player's score is the sum of the numbers not crossed out. The player with the lowest score wins.



ADDITION AND SUBTRACTION – LEVEL 2: MATH TIC TAC TOE

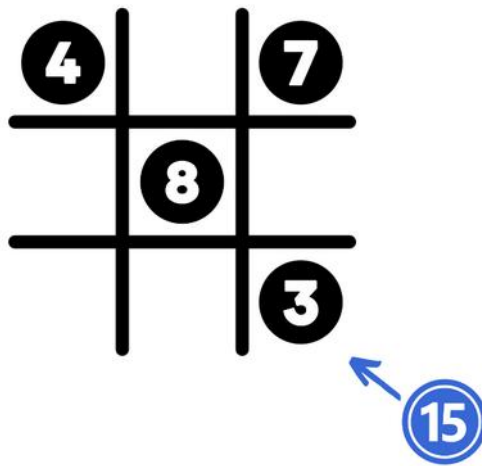
Materials:

Tic-Tac-Toe board

Tokens with the numbers from 1 to 9 on them

Instructions:

One player has the odd numbers and the other the even ones. Players take turns placing a token, with the Odd player going first. The first player to complete 3 in a row whose sum is 15 wins.



Variations:

Variation 1: After a player completes a row with 15, the game keeps going. Fill all the squares, and see which player made the most 15's.

Variation 2: Have an attacker (a person trying to get 15's) and a defender (a person trying to stop 15's from being formed). The attacker goes first. The first move cannot be putting a 5 in the center square.



ADDITION AND SUBTRACTION – LEVEL 2: PAIRING DOWN

Materials:

Paper with number line

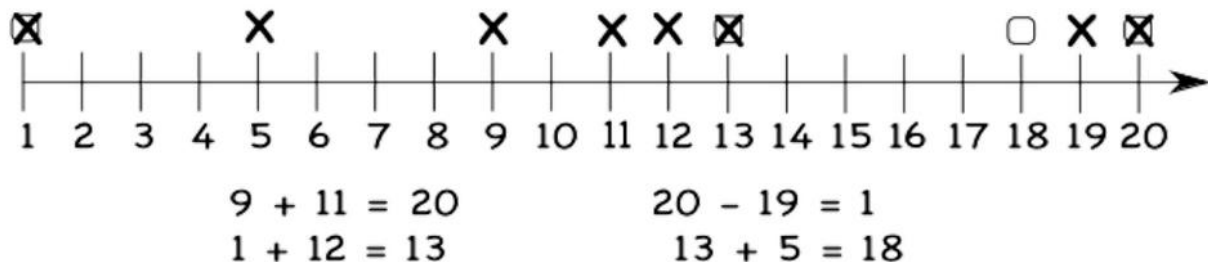
Pencil

Instructions:

Start with a number line that goes from 1 to 20.

During a turn, a player chooses two numbers and a result, none of which have been crossed off. For example, the two numbers could be 9 and 11 with a result of 20 (if adding them) or 2 (if subtracting them). Write down an addition or subtraction equation that involves those numbers. The two numbers in the equation are crossed out, and the result is circled. The next player must use the last result as one of the two numbers being added or subtracted.

If playing competitively, the winner is the last player with a legal move. It can also be played cooperatively to see how few numbers are left untouched.



Instructions: You can use a number line from 1 to 12 or 1 to 15 for a shorter game involving smaller numbers.



ADDITION AND SUBTRACTION – LEVEL 3: SUM DIFFERENCE

Materials:

Pencil and paper if needed

Instructions:

One person states two numbers, one a sum and the other a difference, and the other person is challenged to find the two numbers that have that sum and difference. For example, if one person says the sum is 12 and the difference is 6, the other person says the numbers are 3 and 9.

Observations:

Because of how easy it is to create these questions, this is a good activity to let your child be the questioner.

Not all combinations of numbers for the sum and difference will give reasonable answers. Thinking of two numbers first and then saying their sum and difference will guarantee that there is an answer. Using the example above, the questioner would start with the numbers 3 and 9, add them together (getting 12) and subtract 3 from 9 (getting 6), and then tell the other person “the sum is 12 and the difference is 6”.

Questions and discussion points:

For older children: Why do some sums and differences have answers and others do not?

Thoughts to take home:

This is a great game to play on the go.