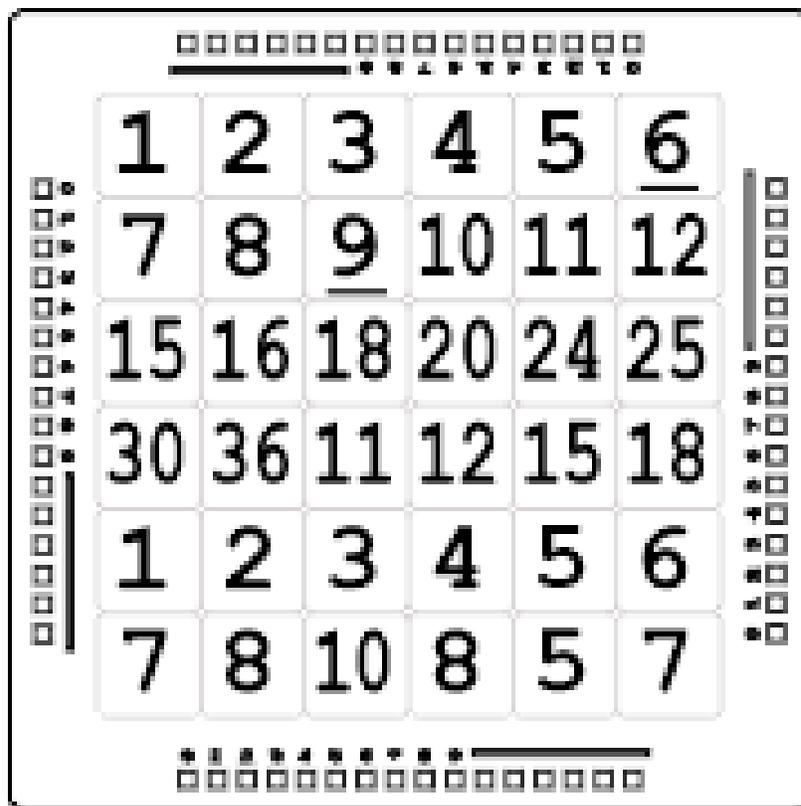


# MATH TAC TOE

## Mathematical Dice Game

(Updated March 10, 2020)

**Math Tac Toe** is a strategic dice game where two to four players attempt to control sufficient territory using mathematical equations. Players take turns flipping tiles in a 6x6 grid using dice rolls. The arrows on the flip side will point towards the player. Aligning enough adjacent arrows towards a player causes the player to score points.



## **LASERCUT COMPONENTS:**

- 6x6 game board for up to four players with ...
- 4 integrated scoring tracks and score markers
- 36 numbered tiles
- Two dice.

**SETUP:** Place all the tiles face up in the grid randomly.  
Reset the score board markers to 0.

## **GAME PLAY:**

On each turn, a player will...

- Roll both dice
- Determine the two to four math equations using both numbers (see chart below)
- Flip any tile that matches that matches the answer to one of the mathematical equations based on the two numbers rolled.
- Align the arrow to point to the player
- Look for sufficient adjacent arrow alignments to score one point (see patterns below)
- After scoring, flip the tiles back to their numbered faces.

## NOTES:

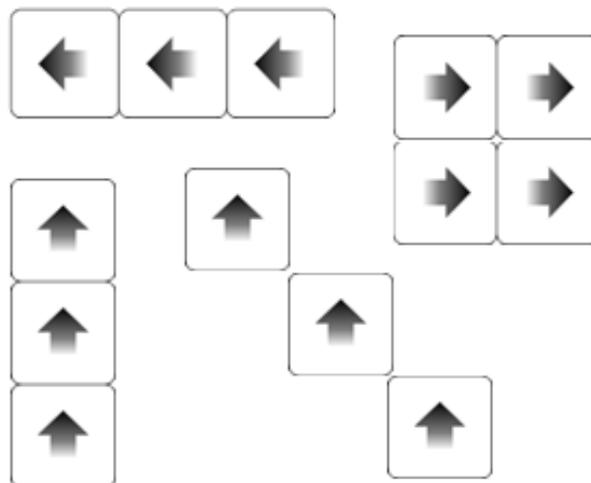
- When a die roll has **no matching answer**, call out your equation then choose a random opponent's arrow and flip it over to reveal its number. Should the number match your answer, flip it back and point the arrow to you. Score if possible.

## STRATEGIES:

- Don't always flip a tile to point to yourself. Thwart your opponent with a potential block.
- Try to remember where numbers are in case you get a chance to flip back an arrow (when there is no match).

## Winning Patterns

Three arrows in a straight line in any direction and a 2x2 square are the winning patterns to score one point:



# Mathematical Die Rolls

Dice Rolls



Equations

$1+1=2 \quad 1 \div 1=1$



$1+2=3 \quad 2-1=1$

$2 \times 1=2$



$1+3=4 \quad 3-1=2$

$3 \times 1=3$



$2+3=5 \quad 3-2=1$

$2 \times 3=6$



$2+5=7 \quad 5-2=3$

$2 \times 5=10$



$2 \times 2=4 \quad 2 \div 2=1$



$3+4=7 \quad 4-3=1$

$3 \times 4=12$



$4 \times 4=16 \quad 4 \div 4=1$

$4+4=8$



$6+4=10 \quad 6-4=2$

$4 \times 6=24$



$6-5=1 \quad 5+6=11$

$6 \times 5=30$



$6-3=3 \quad 3+6=9$

$6 \times 3=18 \quad 6 \div 3=2$

Dice Rolls



Equations

$1+4=5 \quad 4-1=3$

$4 \times 1=4$



$1+5=6 \quad 5-1=4$

$5 \times 1=5$



$1 \times 6=6 \quad 6-1=5$

$6 \times 1=6$



$2+4=6 \quad 4-2=2$

$2 \times 4=8$



$2+6=8 \quad 6 \div 2=3$

$6 \times 2=12 \quad 6-2=4$



$3 \times 3=9 \quad 3 \div 3=1$

$3+3=6$



$5-3=2 \quad 3 \times 5=15$

$5+3=8$



$4+5=9 \quad 5-4=1$

$4 \times 5=20$



$5+5=10 \quad 5 \div 5=1$

$5 \times 5=25$



$6 \div 6=1 \quad 6+6=12$

$6 \times 6=36$

**Alternate Game:** Use three dice and use sums.

**Bonus Points:** If you are able to complete two shapes with one flip, score an extra point.

**Steal Rule:** If a player misses their own winning line up of arrows, then any other player can steal the win.

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