MARTIAN MATH

(July 23, 2025)

🛸**Martian Math** is an out-of-this-world mathematical adventure for kids (5+) and parents alike! 2–4 players race to claim Martian landscapes by rolling dice, crafting equations, and building outpost colonies.

🚀 Game Story

Welcome to the Red Planet! You're bold Martian explorers, surveying mysterious numbered terrains - crystal craters, ancient artifacts and dusty dunes. Solve math puzzles to stake your claim, build a colony, and be the first to light up the Martian map!

📦 Wooden and Magnetic Lasercut Components

- 21 magnetic hexagonal Martian terrain tiles
- Magnetic underlays
- 40 or 80 outpost markers (coloured sets of 20)
- 2 dice.

Objective

Be the first player to build the best colony on Mars.

Setup

1. Shuffle the terrain sections and align to form a map of Mars. Keep your map secure by connecting the sections with magnetic receptors underneath.t
2. Distribute sets of claim markers of the same colour.
3. Decide who goes first - youngest “astronaut” starts!
4. Decide upon the number of rounds and win condition.

Game Play

On your turn, do these steps in order:

1. Roll the Dice
2. Call Out an Equation

   Using addition (+) and subtraction (–) and for older kids, multiplication (×) and division (÷), form an equation with the numbers on the dice to make a result between 1 and 36.

   For example, with dice roll 6 & 3:

   - 6 + 3 = 9
   - 6 – 3 = 3
   - 6 × 3 = 18
   - 6 ÷ 3 = 2

3. Claim Your Outpost
   Find any unclaimed hex matching your result. Place any outpost marker there.
4. End Your Turn
   Pass dice to the next player.

If no valid hex matches your result, you “drift in space” and lose your turn. Play until all markers are placed.

Advanced Game Play

Play as above but claim territory by matching the number on your claim marker with the number on the terrain tile. This is a more advanced way to play as there will be more contiguous territory and encourages strategic placement of outposts.

Endgame & Winning

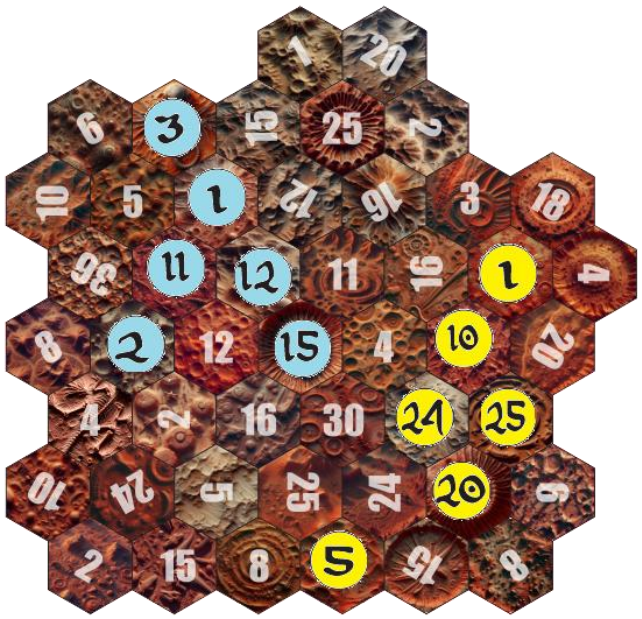
A round ends in one of two ways:

- Instant Win: Be the first to build seven outposts that are not isolated (that is, adjacent to each other).
- Fully Colonized: With all outposts built, the player with the largest colony (most adjacent outposts) wins.

Tie-Breaker: In case of a tie, the winner of a round will have the highest total of the claim numbers in their largest colony.

Building an Outpost:

To claim territory (numbered hex) and build your outpost, place your claim marker on a number matching the outcome of your equation. Always try to claim territory adjacent to your existing outposts to make the largest colony.



Based on adjacent outposts, blue's colony currently has 6 points, while yellow has five points.

Blue rolls:

and calls out "5×6=30".

Claiming territory # 30 will expand the colony to seven contiguous outposts, while possibly blocking yellow.

Doubles Roll - Split a Colony:

A doubles roll allows you to thwart an opponent by seizing a matching outpost, thereby splitting their colony. In the example above, with a roll of 6 & 6 = 12, yellow could cover blue's "12" with a yellow "12". This would cause blue's colony to shrink to four contiguous outposts.

However, even better, 6÷6=1, so yellow could move their "1" outpost to cover blue's "1", thereby splitting blue's colony further and shrinking its size to two. An outpost can be reclaimed on a subsequent matching doubles roll.

Winning a Round and the Game:

When all outposts have been placed, the player with the largest colony (highest number of adjacent outposts) will win the round.

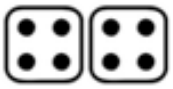
Play three rounds to determine the winner of the game.

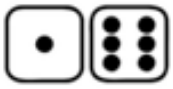
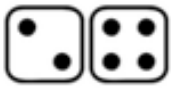
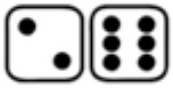
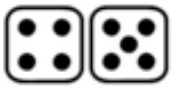
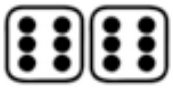
Tips for Parents & Kids

- Encourage calling out all possible equations for a roll (e.g., for 2 & 5: 5+2=7, 5–2=3, 5x2=10).
- Celebrate creative math strategies: sometimes subtraction is just as powerful as addition.

Strap on your helmets, ignite those rocket calculators, and ***colonize Mars—one equation at a time!***

Mathematical Equations from Dice Rolls

Dice Rolls	Equations
	1+1=**2** 1÷1=**1**
	1+2=**3** 2-1=**1** 2x1=**2**
	1+3=**4** 3-1=**2** 3x1=**3**
	2+3=**5** 3-2=**1** 2x3=**6**
	2+5=**7** 5-2=**3** 2x5=**10**
	2x2=**4** 2÷2=**1**
	3+4=**7** 4-3=**1** 3x4=**12**
	4x4=**16** 4÷4=**1** 4+4=**8**
	6+4=**10** 6-4=**2** 4x6=**24**
	6-5=**1** 5+6=**11** 6x5=**30**
	6-3=**3** 3+6=**9** 6x3=**18** 6÷3=**2**

Dice Rolls	Equations
	1+4=**5** 4-1=**3** 4x1=**4**
	1+5=**6** 5-1=**4** 5x1=**5**
	1x6=**6** 6-1=**5** 6x1=**6**
	2+4=**6** 4-2=**2** 2x4=**8**
	2+6=**8** 6÷2=**3** 6x2=**12** 6-2=**4**
	3x3=**9** 3÷3=**1** 3+3=**6**
	5-3=**2** 3x5=**15** 5+3=**8**
	4+5=**9** 5-4=**1** 4x5=**20**
	5+5=**10** 5÷5=**1** 5x5=**25**
	6÷6=**1** 6+6=**12** 6x6=**36**

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