

A high-resolution image of Earth from space, showing the Americas and the Atlantic Ocean. The Earth is a vibrant blue and green sphere with white clouds, set against a black background filled with stars. The text is overlaid on the right side of the image.

# Math in *REAL* world

Math for human desires



# Miss. Beruboe (BEAR-A-BEE)

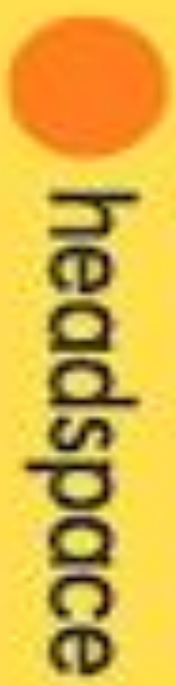




Questions of  
the day

Would you  
shovel  
snow  
like  
leaves?

LET'S VOTE

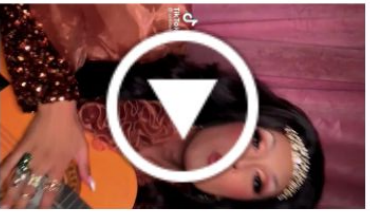
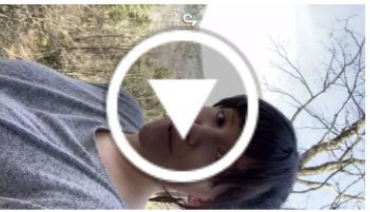
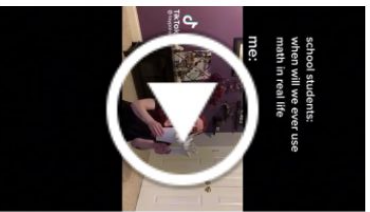
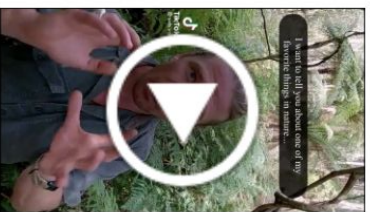


2 minutes- Breathe





# TikTok videos



What are some ways that math is all around us that are shown in the videos?





school students:  
when will we ever use  
math in real life  
me:







Discuss in group!

1. What are some ways that math is all around us that are shown in the videos?
2. Can you think of 3 other ways math is around us? (we will talk about this later today)

# Math for human desires

## Sudoku

The goal when filling out a sudoku is to enter a number from 1 to 9 in each box of the puzzle. Each row, column, and outlined  $3 \times 3$  region must contain each number only once.

### Example I

Sudoku Puzzle - Easy								
9	4	1	8					2
	6	8	4	5	2			3
		5		6	9		4	8
6			5		7	8		4
8	5	7		2	4	9	3	1
2		4		3	8	5	6	
4		6	7	9	1	2		
1		9	2		5		7	6
		2				4	1	9

www.sudoku-puzzles.net

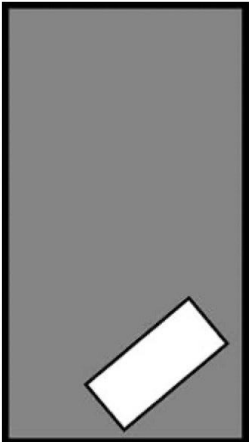
Mathematical exploration begins with questions. So I'm scattering a few puzzles throughout this book. No pressure—you can skip them if you wish, or think about just the ones that seem enticing. Hints and solutions can be found in the back, but before you look there, I recommend playing around with each problem.

### DIVIDING BROWNIES

A father bakes brownies in a rectangular pan as an after-school snack for his two daughters. Before his daughters get home, his wife comes along and removes a rectangle from somewhere in the middle, with the sides of the rectangle not necessarily parallel to the sides of the pan.

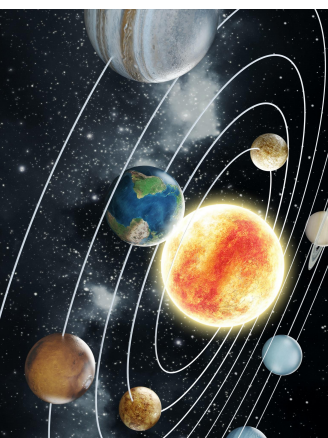
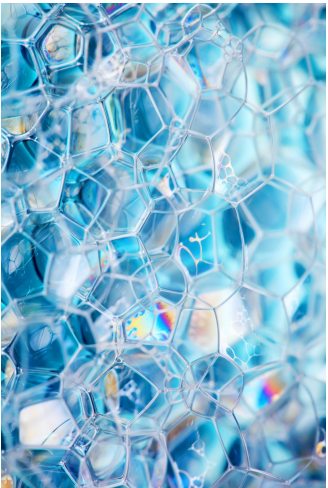
How can he make one straight cut and divide the remainder of the brownies evenly between his two daughters so that they get the same area?

A version of this puzzle was featured on the NPR show *Car Talk*.<sup>a</sup>

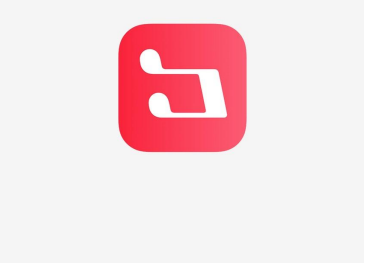
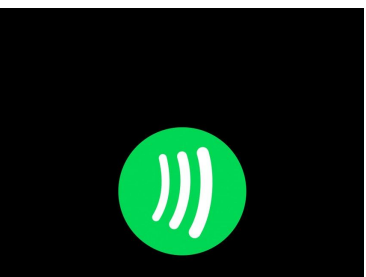




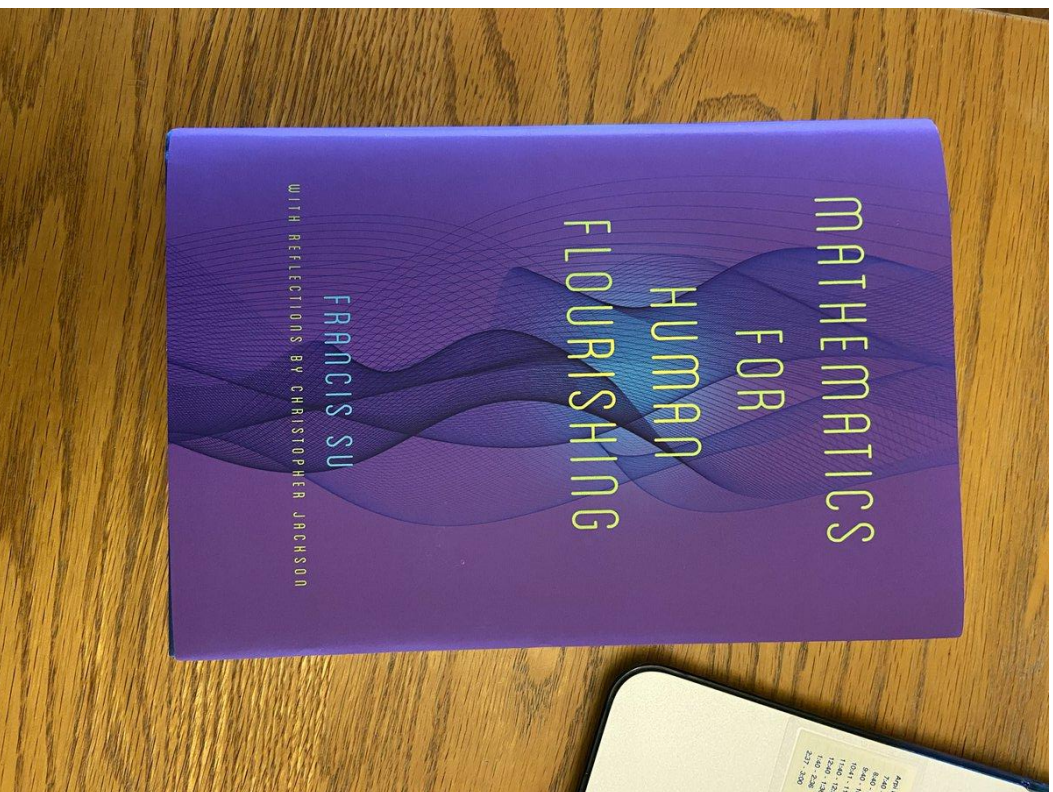
# Math in nature



# Math in the REAL world







- Flourishing
- Exploration
- Meaning
- Play
- Beauty
- Performance
- Truth
- Struggle
- Power
- Justice
- Freedom
- Community
- Love

## Flourishing

“I’m saying that the pursuit of math can, if grounded in human desires, build aspects of character and habits of mind that will allow you to live a more fully human life and experience the best of what life has to offer.”(12)



## Exploration

**“At every opportunity we need to counter the idea that math is memorization, and replace it with the idea that math is exploration.” (26)**

## Meaning

**“Mathematics is the science of patterns and the art of engaging the meaning of those patterns.” (44)**

## **Play**

**“Math builds perseverance- just as weekly soccer practices build up muscles that make us stronger for the next game, weekly math investigations make us more fit for the next problems, whatever it might be- even if we don’t solve the current problem.” (61)**



## **Struggle**

**“Struggling is a good thing, that is where the learning happens..” (122)**

# Future plans (:

Day 1: Math in real world 😊

Day 2: Movement & probability

Day 3: Video games & probability

Day 4: Art & graphing

Day 5: Art gallery & celebration

**Exit ticket!**