



# Number Navigator

**W**hat would your life be like without numbers? Think about how much numbers affect daily life and learn the importance of math.

## Steps

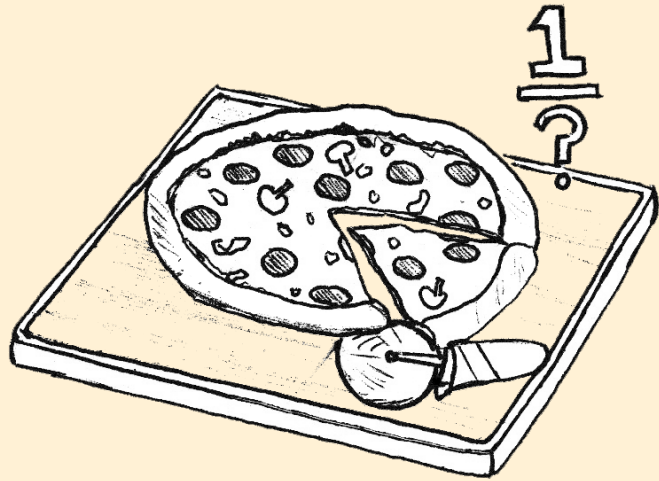
1. Basic Beginnings
2. Math Time Travel
3. Magical Math
4. Life with Numbers!
5. Share!

## Purpose

To encourage young girls to explore math and realize its purpose in everyday life.

## Intro

Think about what math is and how we use it every day in daily activities.



Discuss these questions with your troop before starting the badge:

What is math?

How is math used every day?

How often do you use math?

How does math affect you?

Why is math important?

Who uses math?

# Step 1 Basic Beginnings

Think about the basics of math. What are some simple yet important math concepts?

Choices - do one:

## ★ Option 1: Ones and Tens

Find lots of small objects and count ten of them. How many groups of ten make one hundred? How many hundreds do you think will make one thousand?

Ex: marshmallows, M&Ms, pennies

or \_\_\_\_\_

## ★ Option 2: Guess that Length

Get a ruler and measure an inch of your finger, then find some objects around you. Guess how many inches long they are using your finger! Then measure them with the ruler. How close were your guesses to the actual length?

or \_\_\_\_\_

## ★ Option 3: Mapping with Math

People use math to find the shortest distance to their destination. Look at a map and think about the shortest distance between different locations. How do you find the shortest distance from your home to the park?



## Step 2 Math Time Travel

Think about how math changes throughout time. What was math like in the past? What is math like now? What will math be like in the future?

Choices - do one:

### ★ Option 1: Going Backwards

How was math different in the past? Look at calculators from different time periods. How would each one be used to add or subtract? Discuss what you thought of and when you think the calculator was invented.

Ex: abacus, earlier types of modern calculators

or \_\_\_\_\_

### ★ Option 2: Math Today

How is math used today? Math is used by working adults every day. Talk to parents or adults who use math to do their jobs or use it every day. How do they use math? Think about how math helps them in their everyday lives.

Ex: astronauts, rocket scientists, doctors, chefs

or \_\_\_\_\_

### ★ Option 3: Looking Forward

How do you think you will use math in the future? Discuss in a group. Draw a picture of what you discussed. Will you have a job with math or use it in other ways?

Ex: baking a pie, becoming an astronaut, managing money, building a robot

# Step 3 Magical Math

Think about how using math can be fun. How do you have fun with math?

Choices - do one:

## ★ Option 1: Fun with Shapes

Tangrams are colored plastic pieces that can be arranged to create tons of shapes! What shapes are the tangrams and what shapes can you create with them? Try making different shapes and pictures. How many shapes can you make?

or \_\_\_\_\_

## ★ Option 2: Super Sudoku

There is a popular numbers game called Sudoku, which involves a grid with a few numbers filled in. Try to fill in the rest of the grid, but remember that there can only be one of each number in a row, column, or square! How did you figure out which numbers go in which boxes?

or \_\_\_\_\_

## ★ Option 3: Scoring with Math!

Math is used in a lot of games to keep score. Play a game and keep in mind how math helps you. What other games use math?

Ex: Baseball, soccer, basketball (this would be a good one because you can score one, two, or three points at a time)



## Step 4 Life with Numbers

How do you use math every day?

Choices - do one:

### ★ Option 1: Math and Money

People who use money every day to buy different items. The food you eat is bought using math. Go to a store and see how much food you can buy with only \$10. While you're shopping, keep in mind how much money you have left! Who can buy the most food with the same amount of money?

or \_\_\_\_\_

### ★ Option 2: Math in a Bowl

The food you eat is made using math. Follow a recipe and make a fruit salad! How many of each ingredient is there? What other foods can be made with math?

Ex: If there are 5 strawberries and there are 10 more blueberries than strawberries, how many blueberries are there?

or \_\_\_\_\_

### ★ Option 3: Clock Calculators

Can you use your math skills to figure out how much time you have? Calculate how early you need to get up to be on time to school. Think about how much time you spend every day brushing your teeth, getting dressed, eating, and other daily activities. How much time did you spend getting ready this morning?

Ex: baking a pie, becoming an astronaut, managing money, building a robot

## Step 5

# Share

Share what you did today with others! Tell them why you think math is important.

Write a list

how we use math  
in everyday life

Make a poster

jobs that  
involve math

Draw a picture

About...

how math has  
changed over  
time

Tell someone

designs you  
made with  
shapes

Learn  
more

the food  
you made





I learned about how much numbers affect daily life and learned the importance of math!

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I am inspired to:

Badge created by the Space Cookies, Troop 62868  
FRC Team1868

girl scouts

