

$2+2=4$

$\sqrt[n]{x}$

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# Homemade Math Manipulatives

Kindergarten, 1st and 2nd  
Grade



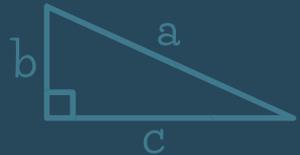
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# Welcome!

Ms Halpern  
TAG Teacher for K-4

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# Outline

Tonight we will:

- Learn why manipulatives are important and how they are used in the classroom
- Review several easy and affordable manipulatives you can make at home
- Discover manipulatives you may already have at home
- Time for Questions

# Why use manipulatives?

1. They are important for the child to be able to visualize and make a connection to the new math concept.
2. Kinesthetic learners will be able to grasp the concept easier.
3. They make math more fun and interactive for the child.
4. Math can be abstract to young learners. Manipulatives make it concrete.
5. Manipulatives give parents and teachers the opportunity to bring math from the textbook to life.

# Popsicle Stick Shapes

## Materials:

Popsicle sticks  
Markers / Sharpie  
Paper

## How to make it:

Color popsicle sticks

Write the name on each one

Cut out shapes: triangle, square, rectangle. Hexagon, pentagon, octagon

## Directions:

Give the child the shapes and sticks. Have them use the popsicle sticks to create the shapes.



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# Pop It Math

## Materials:

Square Pop it with rows of 5 or 10

Sharpie

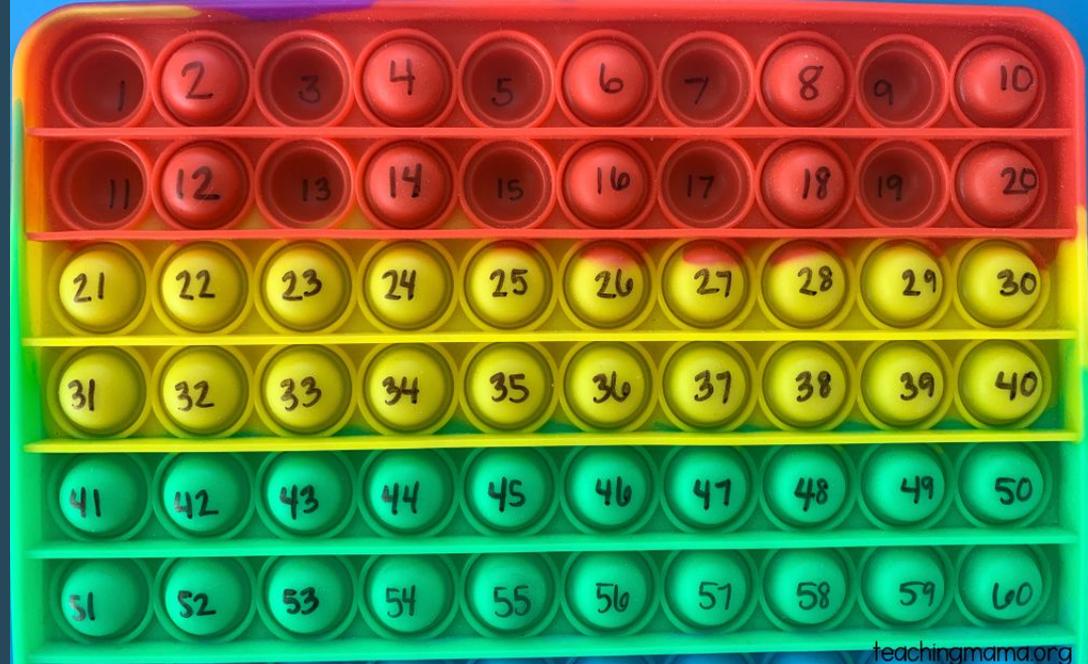
## How to make it:

Write numbers on each bubble

## Directions:

Have the child press down all the odd numbers. Unpop and then have the child press down all the even numbers.

## Odd & Even Number Practice



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# Beach Ball Math

## Materials:

Beach Ball

Sharpie

## How to make it:

Write large numbers all over the beach ball.

## Directions:

Toss the ball. Look what number your right hand and left hand are covering. Add those numbers together.



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# Shape Detective

## Materials:

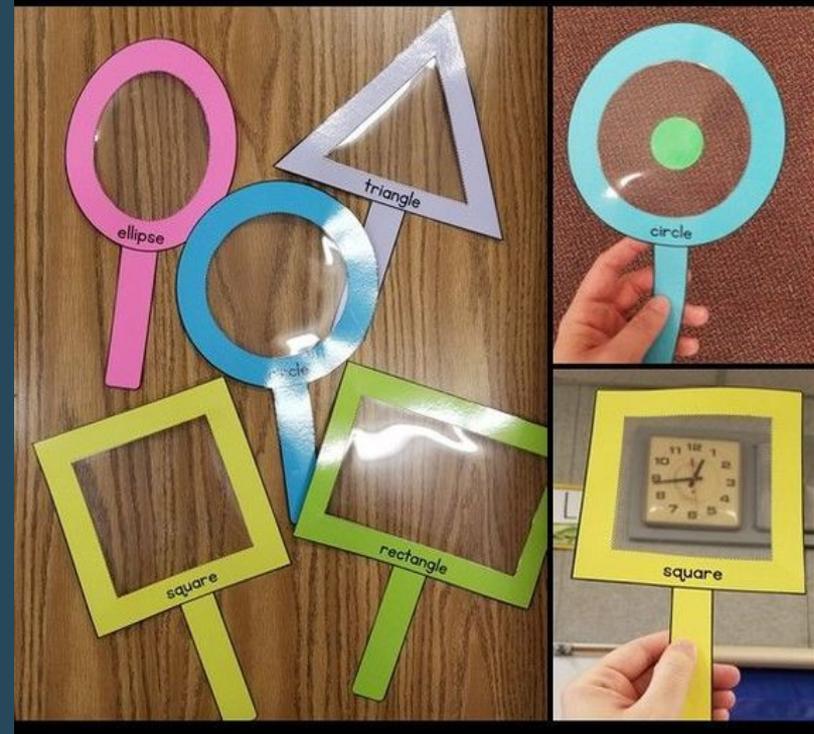
Paper

Scissors

## How to make it:

Cut your own or use the templates to cut out the magnifying glass.

**Directions:** Have the child go around the house or park and use the magnifying glass to find different shapes.



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# Egg Carton Ten Frame

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## Materials:

Egg Carton

10 similar small objects (pennies, raisins, beads)

## How to make it:

Cut off two of the end cups

**Directions:** Have the child practice one to one correspondence, addition and subtraction up to 10



# Rubber Band Numbers

## Materials:

Popsicle Sticks

Rainbow loom bands

## How to make it:

Write different numbers on several sticks.

**Directions:** Give the child a handful of bands. They count out the bands to match the number at the top of the stick.





# Manipulatives you may have at home!

Place Value & Number Sense	Patterns	Measurements
<ul style="list-style-type: none"><li>● straws</li><li>● pretzel sticks</li><li>● popsicle sticks</li><li>● chopsticks</li><li>● pens, pencils, markers, or crayons</li><li>● pipe cleaners</li><li>● cotton swabs</li></ul>	<p>Nearly anything!</p> <ul style="list-style-type: none"><li>● Legos</li><li>● Coins</li><li>● Small figurines</li></ul>	<ul style="list-style-type: none"><li>● Ruler</li><li>● Scale</li><li>● Tape measure</li><li>● Measure cups and spoons</li></ul>

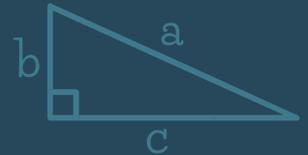
$$2+2=4$$

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$$\sqrt[n]{X}$$

# Questions?



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$$2+2=4$$

42:9

$$\sqrt[n]{x}$$

Thank you!

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$$x/2y$$

$2+2=4$

$\sqrt[n]{x}$

$x/2y$

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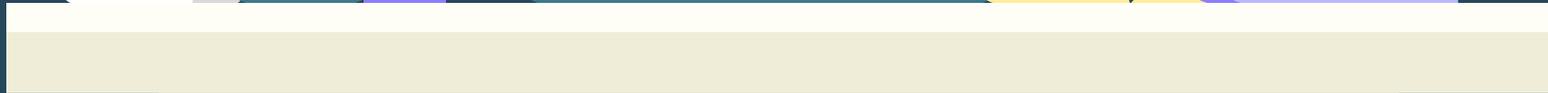
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# Homemade Math Manipulatives

3rd and 4th Grade

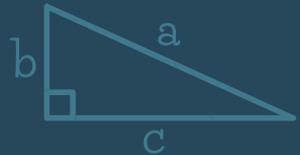


# Welcome!

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TAG Teacher for K-4

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# Outline

Tonight we will:

- Learn why manipulatives are important and how they are used in the classroom
- Learn several easy and affordable manipulatives you can make at home
- Learn about manipulatives you may already have at home
- Time for Questions

# Why use manipulatives?

1. They are important for the child to be able to visualize and make a connection to the new math concept.
2. Kinesthetic learners will be able to grasp the concept easier.
3. They make math more fun and interactive for the child.
4. Math can be abstract to young learners. Manipulatives make it concrete.
5. Manipulatives give parents and teachers the opportunity to bring math from the textbook to life.

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# Beach Ball Math

## Materials:

Beach Ball

Sharpie

## How to make it:

Write large numbers all over the beach ball.

## Directions:

Toss the ball. Look what number your right hand and left hand are covering. Multiply those numbers together.



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# Pop It Math

## Materials:

Square Pop it with rows of 5 or 10

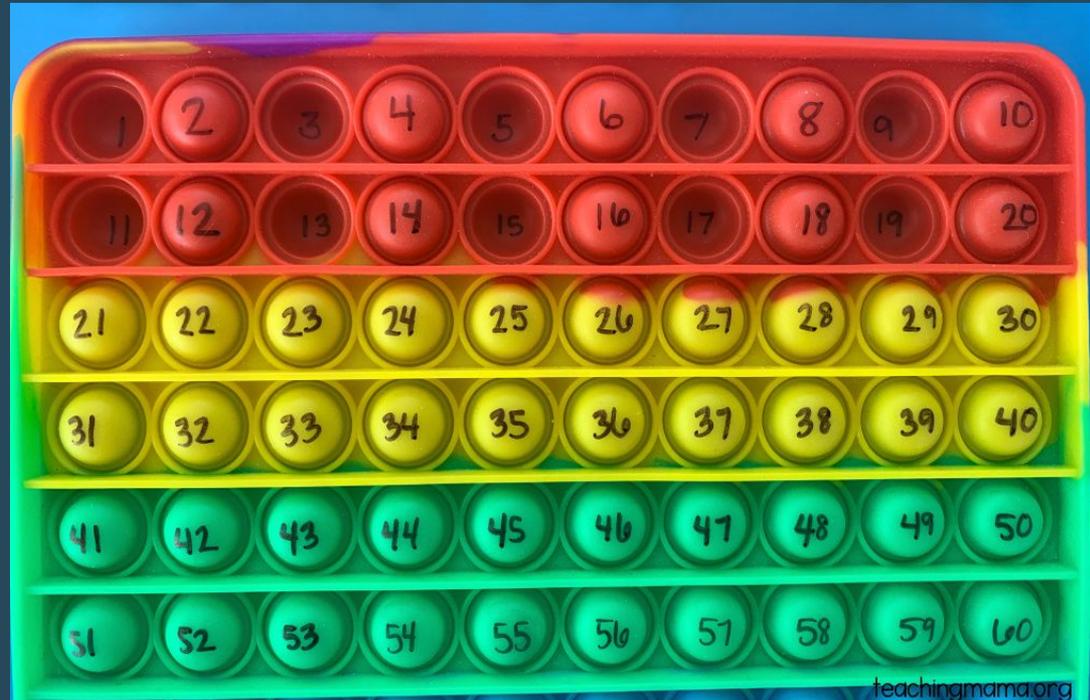
Sharpie

## How to make it:

Write numbers on each bubble

## Directions:

Have the child push the buttons for the multiples of a given number



# Pool Noodle Fractions

## Materials:

Pool Noodles

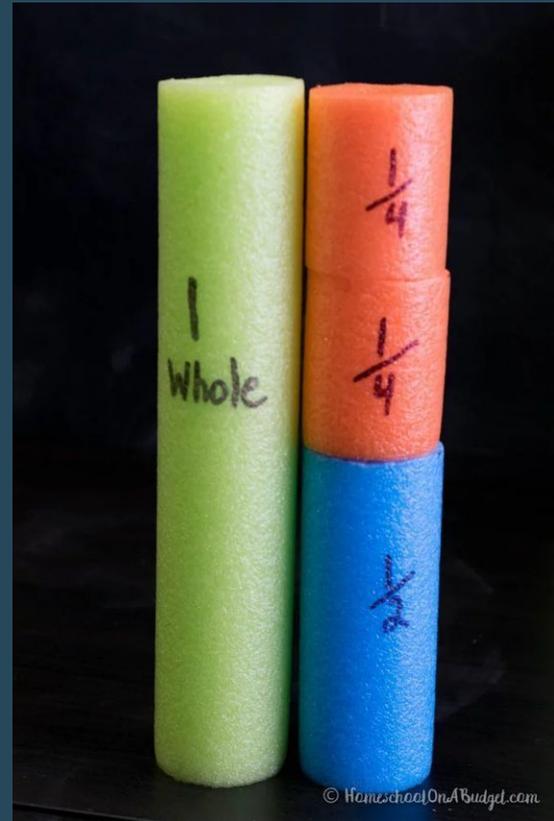
Sharpie

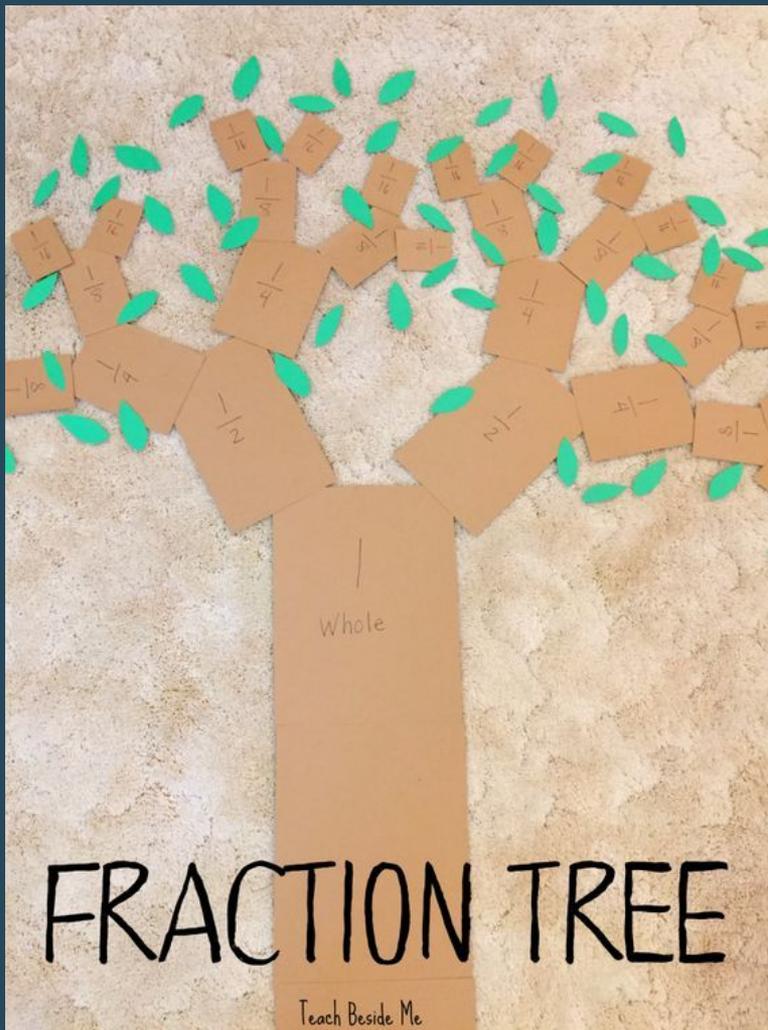
## How to make it:

Cut one pool noodle to represent the one whole.  
Cut another the same size, and then cut it in half.  
Do this again but in 4 equal parts.

## Directions:

Students can use these while learning about fractions and to help solve





Same idea,  
Different  
materials

# Place Value War

## Materials:

Playing cards

[Provided Printout](#)

## Directions:

Student picks two cards - one for the tens place and one for the ones place. Parent/Grownup will do the same. Winner for the round has the highest number. Continue until someone has won 10 rounds.



# Homemade Tangrams

## Materials:

Foam sheet

[Provided printouts](#)

## Directions:

Cut shapes to form a tangram

## How to use:

Use the shapes to form shapes on the printouts



Bonus! These can also be used as pattern blocks

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# Geoboard

**Materials:**

Old cork board (or cardboard)

Pins

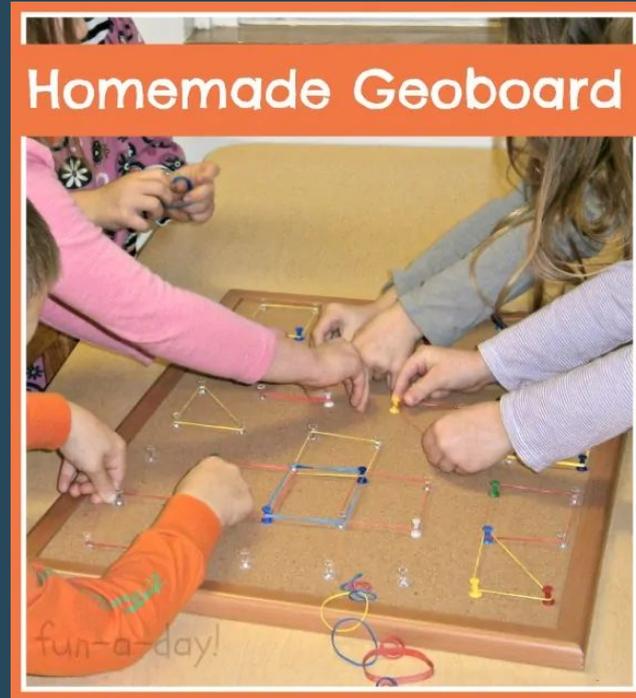
Rubberbands

**Directions:**

Use a ruler to space out the pins equally

**How to use:**

Use the rubber bands to create different shapes



# Play with Money



Work for Hire



# Manipulatives you may have at home!

Probability	Fractions	Multiplication
<ul style="list-style-type: none"><li>● dice</li><li>● coins</li><li>● 2-sided counters (you can use bottle caps)</li><li>● spinners from board games</li><li>● items of similar shape and size (like colored marbles, bouncy balls, toy cars) placed in a bag or box</li></ul>	<ul style="list-style-type: none"><li>● dice</li><li>● coins</li><li>● 2-sided counters (you can use bottle caps)</li><li>● spinners from board games</li><li>● items of similar shape and size (like colored marbles, bouncy balls, toy cars) placed in a bag or box</li></ul>	<ul style="list-style-type: none"><li>● pieces of colored candy</li><li>● food ( cereal, raisins, beans, popcorn, etc.)</li><li>● legos or other building blocks</li><li>● dice</li><li>● dominoes</li><li>● playing cards</li><li>● chips or tokens from board games</li></ul>

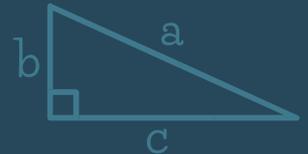
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$$\sqrt[n]{X}$$

# Questions?



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Thank you!

$$\sqrt[n]{x}$$

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$$x/2y$$