

RED, WHITE, & BLUE: PLANNING A PATRIOTIC PARADE Project Based Learning



2nd Grade
Print & Digital

PARADE ROUTE

Your first task is to determine the ideal route for the parade through the streets of Mapleton. Three proposed routes are shown on the maps below. Answer the questions.

ROUTE A

ROUTE B

ROUTE C

Determine the length of each possible parade route. To do so, you will count how many blocks each route is. Write the length of each route in the space below.

ROUTE A = _____ blocks ROUTE B = _____ blocks ROUTE C = _____ blocks

_____ yards long. Skip count by 100 to see how many yards long each parade route is.

ROUTE A = _____ yards ROUTE B = _____ yards ROUTE C = _____ yards

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KEEPING TIME

It's important to keep track of when each group starts and finishes marching the parade route. If you don't, two groups might collide mid-parade! Use the clocks in the table below to answer the questions.

Group	Fire Engine #750	Veterans & Scouts	Mapleton HS Cheerleaders	Marching Band	Mapleton Police Department
Start Time					
End Time					

- Read the clocks. Fill in the start times in the spaces underneath each clock.
- Fill in the end times in the spaces under each clock, except for the Mapleton Police Department.
- The Mapleton Police Department takes 1 hour to finish the parade route. At what time will they finish? Write the time in the space under the clock. Drag the hands to the clock and rotate to show the time.

Drag me

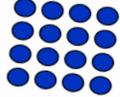
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Print & Digital Versions

PARADE ARRAYS

You have several different groups marching in the parade. In the arrays below, each red and blue circle represents a person. The arrays show how the groups will arrange their members to march in the parade. Use the arrays to answer the questions.



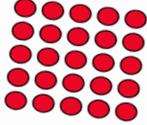
Legion of Local Veterans



Scout Troop #45



Mapleton HS Cheerleaders



Marching Band



Mapleton Police Department

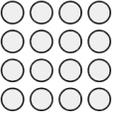
Group	Legion of Local Veterans	Scout Troop #45	Mapleton HS Cheerleaders	Marching Band	Mapleton Police Department
Addition Equation	<input style="width: 100%; height: 20px;" type="text"/>				
Number of Members	<input style="width: 100%; height: 20px;" type="text"/>				

1. Look at each array. In the table, write an addition equation to determine how many members are in each group.
2. Solve each addition equation to find out the number of members marching in each group. Fill your answers in the table.

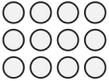
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PARADE ARRAYS

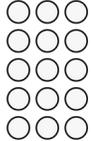
You have several different groups marching in the parade. In the arrays below, each red and blue circle represents a person. The arrays show how the groups will arrange their members to march in the parade. Use the arrays to answer the questions.



Legion of Local Veterans



Scout Troop #45



Mapleton HS Cheerleaders



Marching Band



Mapleton Police Department

Group	Legion of Local Veterans	Scout Troop #45	Mapleton HS Cheerleaders	Marching Band	Mapleton Police Department
Addition Equation	<input style="width: 100%; height: 20px;" type="text"/>				
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1. Look at each array. In the table, write an addition equation to determine how many members are in each group.
2. Solve each addition equation to find out the number of members marching in each group. Fill your answers in the table.

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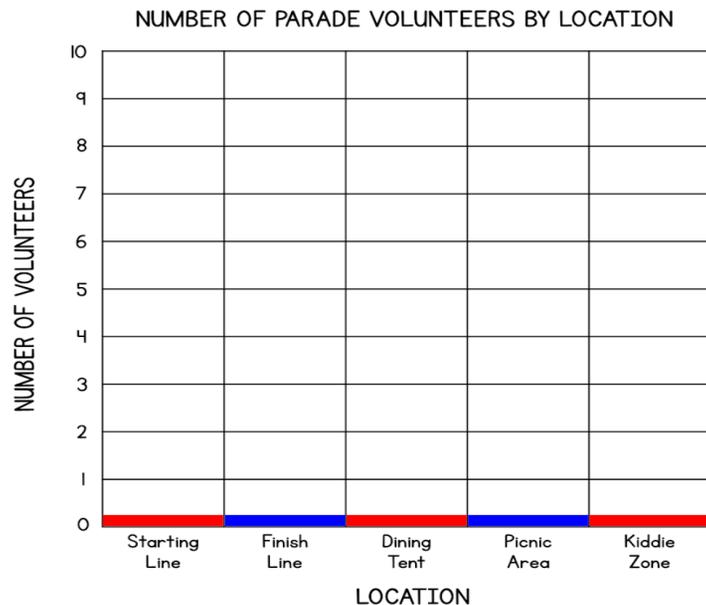
Aligned to CCSS Math Standards

- 2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems
- 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends
- 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s
- 2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits
- 2.NBT.B.7 Add and subtract within 1000
- 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools
- 2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes
- 2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies
- 2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set

PARADE VOLUNTEERS

In order to keep the festivities organized, there are volunteers stationed in different areas to help manage the crowd. The table below shows how many volunteers are in each area. Plot the data on the bar graph by clicking on each colored bar and dragging to resize.

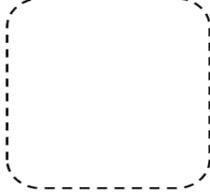
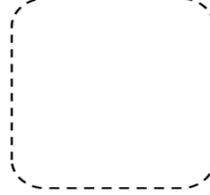
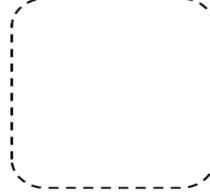
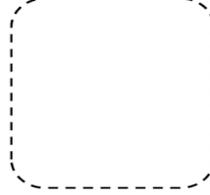
Location	Number of Volunteers
Starting Line	7
Finish Line	8
Dining Tent	3
Picnic Area	6
Kiddie Zone	9



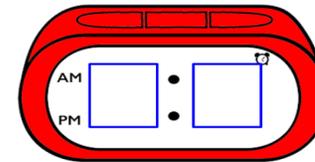
Interactive Elements

KEEPING TIME

In addition to the parade, there are other events throughout the day. The shapes below show each event and the time it takes place. Read the times on the clocks. Each time shown is during the PM. Drag and drop the shapes so they are in chronological order.

				
 Pie Eating Contest	 Fireworks	 Raising of the Flag	 Square Dancing	 Mayor's Speech

6. If you want to participate in the pie eating contest, you need to be at the pie eating contest 15 minutes before the contest begins. Fill in the numbers on the digital clock below to show at what time contestants should arrive at the contest. Drag the circle to show AM or PM.



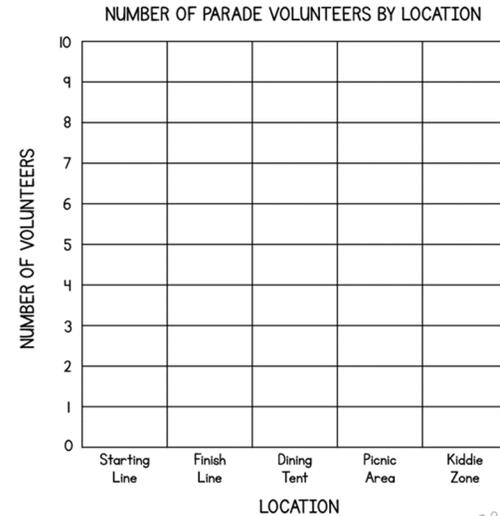
AM :
PM :

Realistic Scenarios

PARADE VOLUNTEERS

In order to keep the festivities organized, there are volunteers stationed in different areas to help manage the crowd. The table below shows how many volunteers are in each area. Plot the data on the bar graph by drawing and shading colored bars.

Location	Number of Volunteers
Starting Line	7
Finish Line	8
Dining Tent	3
Picnic Area	6
Kiddie Zone	9



PARADE VOLUNTEERS

1. How many volunteers are stationed at the parade starting line and the finishing line altogether?
2. What area has the most volunteers? What area has the least volunteers?
3. How many more volunteers are stationed at the area with the most volunteers than the area with the least?
4. How many volunteers are there in total?
5. Of the total volunteers, 14 of them volunteered at the parade last year. The rest of the volunteers have never volunteered at the parade before. How many of them are volunteering for the first time this year?

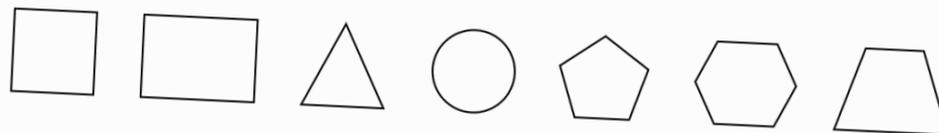


Challenge Activities for Differentiation

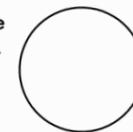
CHALLENGE #2 : PARADE FLOAT

You are building a patriotic parade float that will be the grand finale of the parade. The float is made up of many different pieces. Answer the questions below about the parade float's construction.

- You need to cut these shapes from foam to use on the parade float. Write the name of each shape in the space.



- Draw lines to partition this shape into three equal parts. Each part represents one _____ of the shape.



- Draw lines to partition this shape into 3 equal columns and 3 equal rows. How many small squares make up the shape? _____

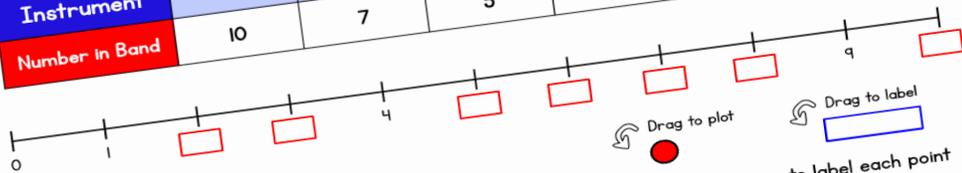


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CHALLENGE #1 : MARCHING BAND

The marching band consists of several different instruments, and there are multiple musicians playing each type of instrument. The table below shows how many musicians play each type of instrument.

Instrument	Drum	Trumpet	Clarinet	Saxophone	Flute	Trombone
Number in Band	10	7	5	5	3	8



- Finish adding numbers to the number line.
- Drag the dots onto the number line to plot the data from the table. Drag textboxes to label each point with the instrument it represents.
- Complete the sentences with instruments from the table.
 There are the most _____ in the marching band.
 There are the least _____ in the marching band.
 There are an equal number of _____ and _____ in the marching band.

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Applicable to
Real Life & Fun!

PATRIOTIC FESTIVITIES



PIE EATING CONTEST

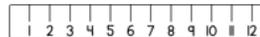
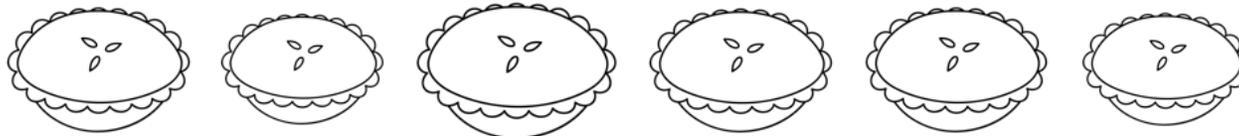
1. The people of Mapleton are invited to participate in the annual pie eating contest! First, you need to check that all the pies are an equal size to make sure the competition is fair. Check the tool you would use to measure the width (also known as the diameter) of the pies.

Ruler

Yardstick

Measuring tape

2. The pies below need to be measured to ensure each one has a diameter of exactly 9 inches across the widest part of the top. Cut out the ruler to measure each pie. If it's the right size, draw a checkmark on the pie. If it's the wrong size, draw an X on the pie.



3. Each apple pie filling contains five apples. How many apples are in 12 pies? Skip count by 5 to find the answer. Write the skip counts.

Student Self- Reflection & Assessment

SELF-REFLECTION

Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?

SELF EVALUATION

Drag the circle to one box per row on the rubric that expresses how you rate yourself on this Project Based Learning Activity.

+	✓	-
I felt very confident about the math in this project.	I felt pretty good about my ability to complete the math in this project.	I felt a lot of the math in this project was too hard for me to do alone.
I understood all of the math and did not need help to complete the problems.	I understand most of the math but needed a little help to solve some of the problems.	I understood some of the math but needed help to complete most of the problems.
I easily used many strategies to solve the math problems efficiently.	I needed some help to use the best strategies for solving the math problems.	I had trouble understanding the best way to solve many of the math problems.
I feel I am ready for a harder math project.	I feel I would like to spend more time practicing similar math problems.	I feel I need assistance to work on similar math problems

RATE THIS PROJECT

Circle the statement you most agree with.

Order. This was just right. I found this very challenging.

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TABLE OF CONTENTS

1. Teacher Directions and Standards Addressed
2. Student Directions
3. Parade Route (Calculating Length)
4. Parade Arrays (Arrays)
5. Keeping Time (Telling Time)
6. Parade Volunteers (Bar Graphs and Pictographs)
7. Patriotic Festivities (Word Problems, Money, Measurement, Place Value)
8. Challenge 1: Marching Band (Plotting on a Number Line)
9. Challenge 2: Parade Float (Polygons, Partitioning Shapes)
10. Evaluation & Rubric
- 11 Answer Key



THANK YOU FOR
PURCHASING THIS
COMMON CORE
KINGDOM DIGITAL
RESOURCE!

The Google Slides version of this resource requires that you make a copy of the resource to your own Google Drive.

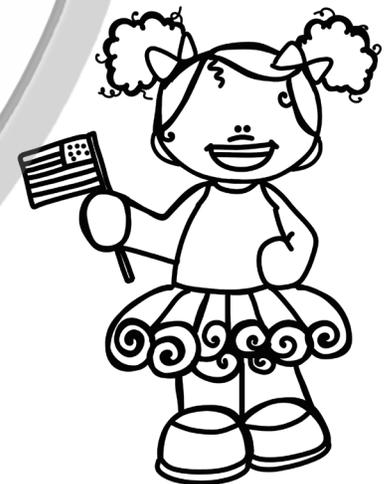
FOR THE TEACHER

RED, WHITE, AND BLUE: PLANNING A PATRIOTIC PARADE is a project-based learning task that involves using second grade math standards to plan a patriotic holiday parade. It was created for students in second grade. The following standards are addressed:

- 2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems
- 2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends
- 2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s
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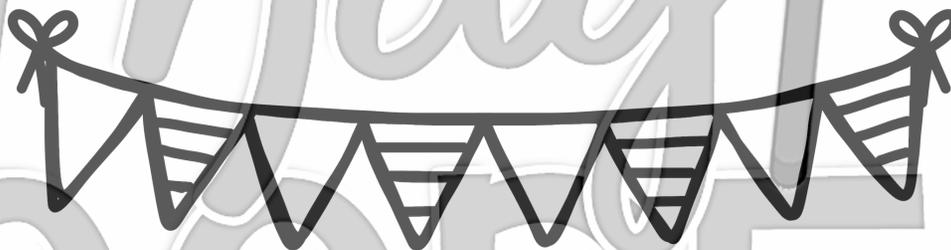
DIRECTIONS:

1. Assign students to work alone or in small groups.
2. Preview the activity with your students.
3. Allow students class time to complete the activity. This can span several days.
4. Allow students an opportunity to complete extra challenge activities (optional).
5. Allow students to complete the self-reflection and evaluation rubric.
6. Allow students an opportunity to share their completed projects.



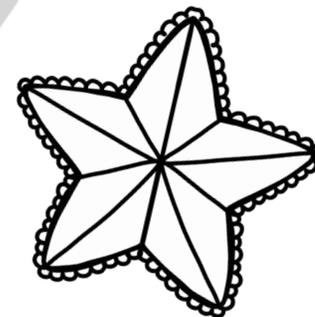
RED, WHITE, AND BLUE: PLANNING A PATRIOTIC PARADE

You have been hired plan a festive, patriotic parade in your hometown of Mapleton, USA! It is your job to organize the groups marching in the parade, set the course of the parade, analyze parade attendance, plan fun patriotic festivities like a bake sale, dunk tank, and fireworks, and assure everything is timed to perfection!



Here are your tasks:

- Read through the entire packet before beginning.
- Calculate and compare the lengths of possible parade routes.
- Use arrays to organize the groups marching in the parade.
- Answer questions about the schedule of groups marching in the parade.
- Analyze data about how many volunteers are needed on the day of the parade.
- Solve word problems about patriotic festivities involving money, measurement, and place value
- (Optional) Complete the challenge pages.
- Complete the self-reflection and evaluation rubric.



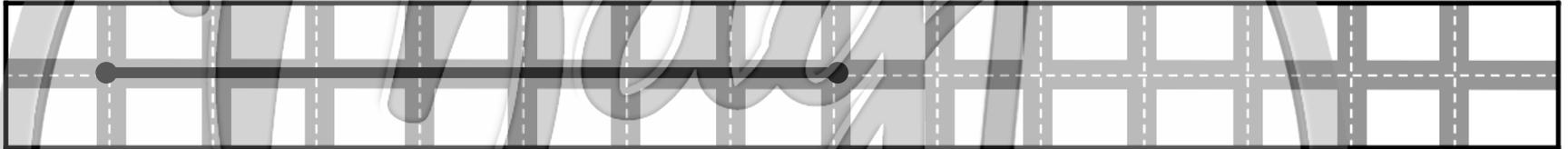
PARADE ROUTE

Your first task is to determine the ideal route for the parade through the streets of Mapleton. Three proposed routes are shown on the maps below. Answer the questions.

ROUTE
A



ROUTE
B



ROUTE
C



1. You want to determine the length of each possible parade route. To do so, you will count how many blocks long each route is. Write the length of each route in the spaces below.

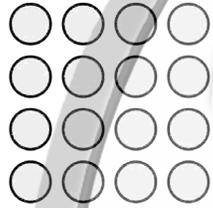
ROUTE A: = _____ blocks ROUTE B: = _____ blocks ROUTE C: = _____ blocks

2. Each block is 100 yards long. Skip count by 100 to see how many yards long each parade route is.

ROUTE A: = _____ yards ROUTE B: = _____ yards ROUTE C: = _____ yards

PARADE ARRAYS

You have several different groups marching in the parade. In the arrays below, each circle represents a person. The arrays show how the groups will arrange their members to march in the parade. Use the arrays to answer the questions.



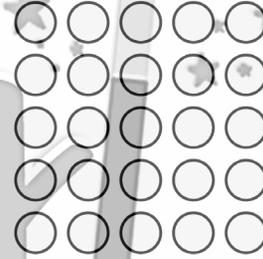
Legion of Local Veterans



Scout Troop #45



Mapleton HS Cheerleaders



Marching Band



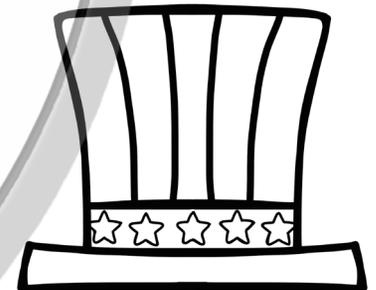
Mapleton Police Department

Group	Legion of Local Veterans	Scout Troop #45	Mapleton HS Cheerleaders	Marching Band	Mapleton Police Department
Addition Equation					
Number of Members					

1. Look at each array. In the table, write an addition equation to determine how many members are in each group.
2. Solve each addition equation to find out the number of members marching in each group. Fill your answers in the table.

PARADE ARRAYS

3. Of the members of Scout Troop #45, there are 3 Senior Scouts and the rest are Junior Scouts. How many Junior Scouts are in Troop #45?
4. The Mapleton Fire Department is also marching in the parade. They march in 3 rows of 5 people each. Draw an array to show how the firefighters will march. Write and solve an addition problem about the array.
5. The Mapleton High School boys' basketball team won the state championship this year, and to celebrate all 9 players will be marching in the parade. Draw an array of equal rows and columns. Write and solve an addition problem about your array.

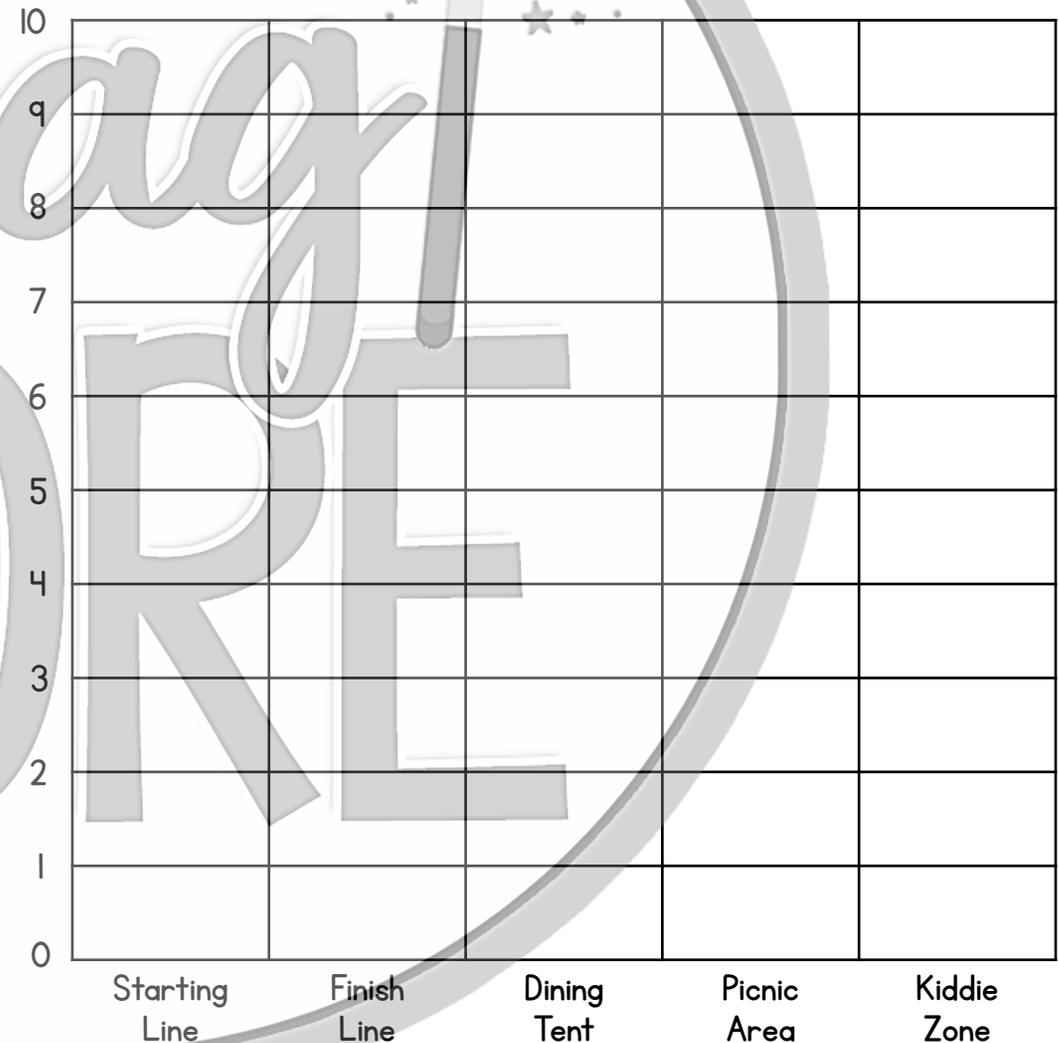


PARADE VOLUNTEERS

In order to keep the festivities organized, there are volunteers stationed in different areas to help manage the crowd. The table below shows how many volunteers are in each area. Plot the data on the bar graph by drawing and shading colored bars.

NUMBER OF PARADE VOLUNTEERS BY LOCATION

Location	Number of Volunteers
Starting Line	7
Finish Line	8
Dining Tent	3
Picnic Area	6
Kiddie Zone	9



LOCATION

PARADE VOLUNTEERS

1. How many volunteers are stationed at the parade starting line and the finishing line altogether?
2. What area has the most volunteers? What area has the least volunteers?
3. How many more volunteers are stationed at the area with the most volunteers than the area with the least?
4. How many volunteers are there in total?
5. Of the total volunteers, 14 of them volunteered at the parade last year. The rest of the volunteers have never volunteered at the parade before. How many of them are volunteering for the first time this year?

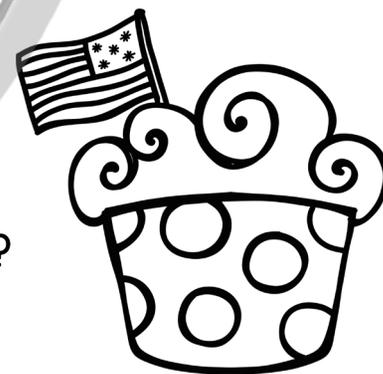


PATRIOTIC FESTIVITIES

In addition to the parade, you want to include some other patriotic festivities the townspeople can partake in to celebrate. Answer the following word problems about the different patriotic festivities.

BAKE SALE

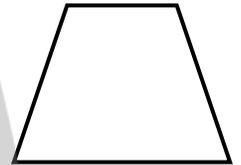
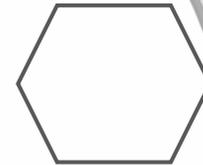
1. The Mapleton Elementary School PTA sets up a bake sale. A red, white, and blue cookie costs 85¢. Write two different ways you could pay for a cookie in coins using exact change.
2. There are 46 patriotic cupcakes for sale at the bake sale. 10 are strawberry flavored, 16 are vanilla, and the rest are chocolate. How many chocolate cupcakes are for sale?
3. Jacob wants to buy a brownie from the bake sale. A brownie costs \$1.25. In his pocket, he has three quarters, four dimes, three nickels, and two pennies. Does Jacob have enough money to buy a brownie? Explain how you know.
4. Marisol buys a muffin and a slice of apple pie. The muffin costs 95¢ and the pie costs \$1.50. She pays with a \$5 bill. How much change will Marisol receive in return?



CHALLENGE #2 : PARADE FLOAT

You are building a patriotic parade float that will be the grand finale of the parade. The float is made up of many different pieces. Answer the questions below about the parade float's construction.

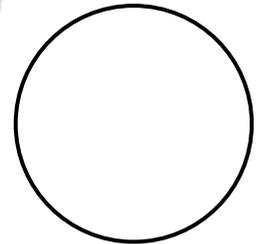
1. You need to cut these shapes from foam to use on the parade float. Write the name of each shape in the space.



2. Draw lines to partition this shape into two equal parts. Each part represents one _____ of the shape.



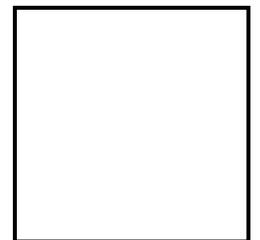
3. Draw lines to partition this shape into three equal parts. Each part represents one _____ of the shape.



4. Draw lines to partition this shape into four equal parts. Each part represents one _____ of the shape.



5. Draw lines to partition this shape into 3 equal columns and 3 equal rows. How many small squares make up the shape? _____



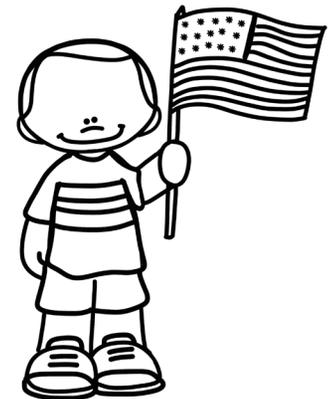
CHALLENGE #2 : PARADE FLOAT

6. The shapes that are making up the float are all different sizes. The table below shows the shape name and how tall it is. Choose which measuring tool is best for measuring that shape (ruler, yardstick, or measuring tape) and write in the table.

Shape	Square	Rectangle	Triangle	Circle	Pentagon	Hexagon	Trapezoid
Height (in feet)	2	4	6 ½	1	3	8	1
Measuring Tool							

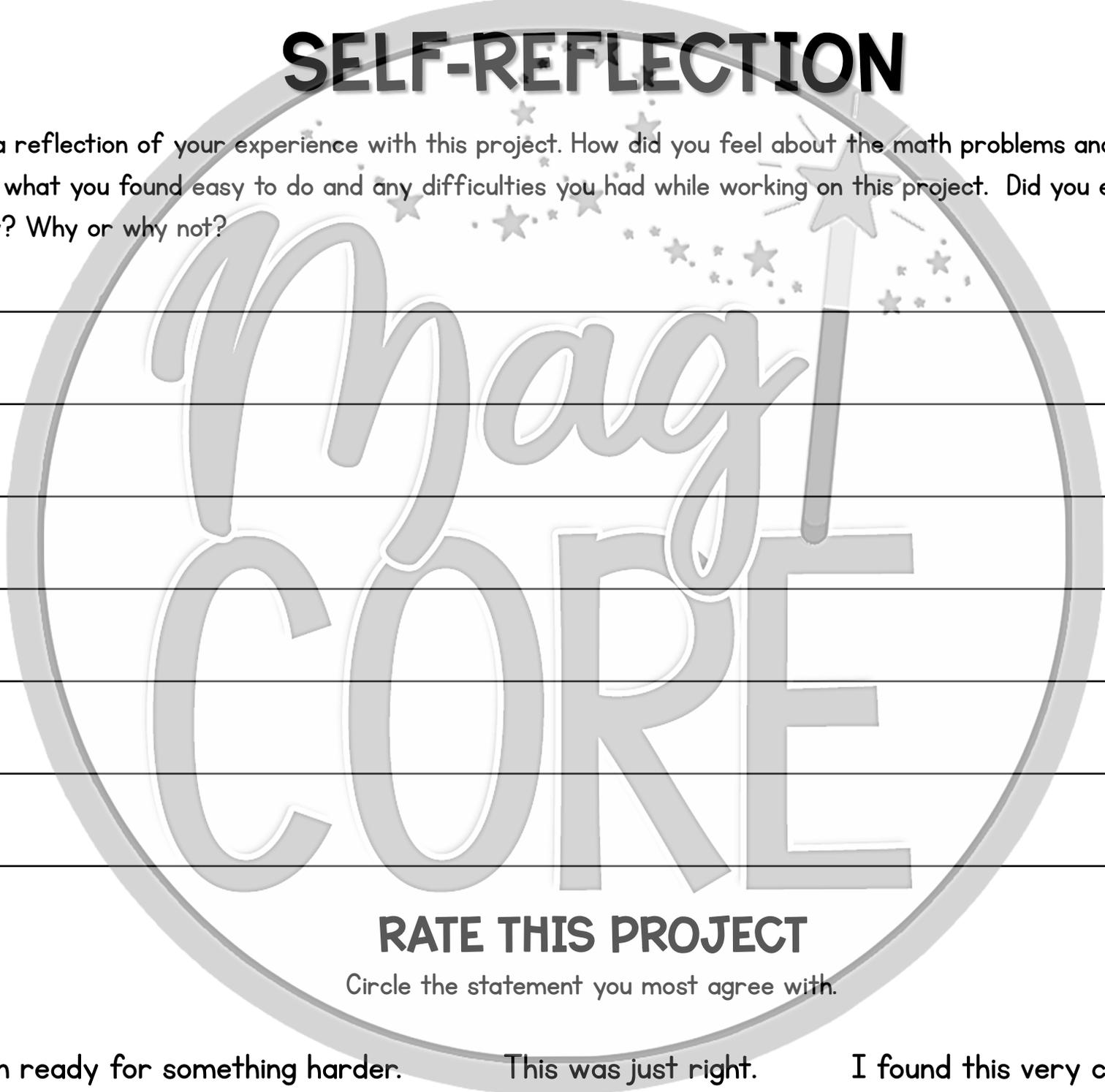
7. How much taller is the triangle than the pentagon?

8. You want to stack 3 shapes on top of each other to create a tower that is exactly 13 feet high. Draw a diagram showing which three shapes you can use.



SELF-REFLECTION

Write a reflection of your experience with this project. How did you feel about the math problems and activities? Explain what you found easy to do and any difficulties you had while working on this project. Did you enjoy this activity? Why or why not?



RATE THIS PROJECT

Circle the statement you most agree with.

I am ready for something harder.

This was just right.

I found this very challenging.

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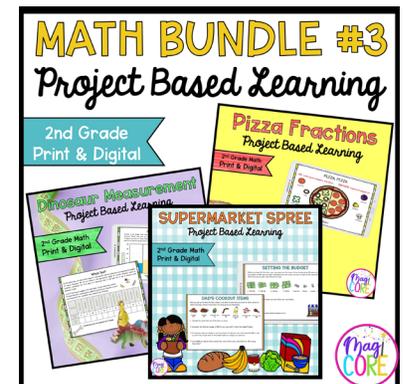
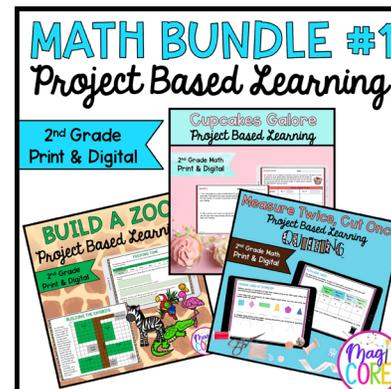


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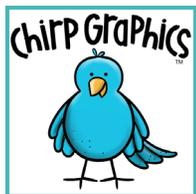
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