



THIRD SPACE
LEARNING

Themed Math Problems

Set 3
March - June

4th grade

Read Across America Day

March 2nd

Today, we celebrate the privilege of being able to read and the pleasure of enjoying a good book. People across America are encouraged to pick up a book and spend some time getting lost in the stories on their bookshelves.

Question

For Read Across America Day, a class decides to start a book club. Each student in the book club commits to reading a certain number of pages each week. The book club has 15 students. In the first week, each student reads 25 pages. In the second week, each student increases their reading by 7 pages. In the third week, each student increases their reading by another 5 pages from the second week. How many total pages does the book club read collectively over the three weeks? Discuss with a friend how you would go about solving this.



International Women's Day

March 8th

Today, we celebrate the social, economic, political, and cultural achievements of women across the world and the progress that has been made towards achieving equality. Today we also bring awareness to the ways in which we need to continue to strive towards gender equality.

Question

In a company of 120 employees, $\frac{3}{4}$ of the employees participate in an International Women's Day seminar. If each participating employee contributes \$18 towards a charity supporting women's education, how much money does the company raise in total from its employees for the charity?

Discuss with a friend how you would go about solving this problem.



Pi Day

March 14th

Today is Pi Day, celebrated on March 14th, because it is 3 / 14, the first three digits of the mathematical constant, pi (3.14...). Today we bring awareness to the importance of mathematics and its role in shaping our world, and to promote the beauty and relevance of mathematics in the world.

Question

A bakery prepares a special pie puzzle for Pi Day. They bake a large pie and cut it into different fractional pieces for their customers. The bakery cuts the pie into 8 equal slices. Then, they take 3 slices and cut each of these into half, creating smaller slices. A customer buys half of the original large slices and two of the smaller slices. What fraction of the whole pie does the customer buy? Discuss with a friend how you would go about solving this problem.



St. Patrick's Day

March 17th

Today, we celebrate St. Patrick's Day, a religious and cultural holiday commemorating the arrival of Christianity into Ireland, and by extension, we celebrate the heritage and culture of the Irish in general. We celebrate with shamrocks and by wearing green, and may even include visits from mischievous leprechauns.

Question

For St. Patrick's Day, a group of children decide to go on a mythical hunt for leprechaun gold. According to legend, each leprechaun hides his pot of gold at the end of a rainbow and each pot contains a different number of gold coins.

The children find three leprechauns. The first leprechaun's pot contains twice the amount of gold coins as the second leprechaun's pot.

The third leprechaun's pot contains the same amount of gold coins as the second leprechaun's pot.

Altogether, the three leprechauns have 128 gold coins.

How many gold coins did each leprechaun have?

Discuss with a friend how you would go about solving this problem.



April Fool's Day

April 1st

Today is April Fool's Day, a day consisting of practical jokes and pranks. From whoopee cushions to pies in the face, today is a day to be extra alert, never knowing when you may find yourself on the other side of a prank!

Question

A group of friends decides to pull a series of harmless pranks at their school for April Fool's Day. They plan to place whoopee cushions on the seats in three classrooms. Each classroom has 24 chairs.

In the first classroom, they put whoopee cushions on $\frac{1}{2}$ of the chairs.

In the second classroom, they put whoopee cushions on $\frac{2}{3}$ of the chairs.

In the third classroom, they put whoopee cushions on $\frac{3}{4}$ of the chairs.

How many whoopee cushions do the friends use in total for the three classrooms?



Easter

First Sunday after the full moon on or after the Spring Equinox (a Sunday in March or April)

Today, many around the world celebrate the Christian holiday of Easter, known to many Christians as Resurrection Sunday. It is also a day that many celebrate as a marker of Spring after a long and difficult winter, celebrating with flowers, bunnies and chicks, and goodies found inside Easter baskets.

Question

A family decides to bake cookies and cupcakes for an Easter gathering. They have a tradition of baking a specific number of each based on the number of guests. They bake 4 cookies for each guest. They also bake 2 cupcakes for every 3 cookies. If they are expecting 15 guests at the gathering, how many cookies and cupcakes do they bake in total?



Earth Day

April 22nd

Today is Earth Day, a day to bring awareness to our planet and the things we can do to take better care of it and support environmental protection. Many celebrate by learning about new ways they can make a simple change in their everyday lives that will make a larger impact over time. Others may plant a tree, or clean up trash they find outside.

Question

A community decides to create a garden for Earth Day. The garden is designed in a square shape and is divided into sections for different types of plants: flowers, vegetables, and herbs. The side length of the garden is 15 meters. The flower section takes up $\frac{1}{3}$ of the garden's area. The vegetable section takes up $\frac{2}{5}$ of the garden's area. The remaining area is allocated for herbs. What is the area, in square meters, allocated for each section of the garden?



National Superhero Day

April 28th

Today is National Superhero Day, and while this day may sound like a day to celebrate your favorite comic book superhero, it is also a day to recognize the superheroes that exist around us in our society, making a difference with the sacrifices they make for others every day.

Question

To celebrate National Superhero Day, a local community group organizes a charity challenge to raise funds for a cause dedicated to helping families in need. Participants can choose among three activities: a fun run, a bake sale, or a comic book sale, with each activity contributing differently to the fundraising goal. Each participant in the fun run raises \$50 towards the fund. For the bake sale, each item sold contributes \$5 to the fund. Each comic book sold at the comic book sale contributes \$10 to the fund. The community group sets a goal to raise a total of \$5,000. On the day of the event: 40 people participated in the fun run. 300 items are sold at the bake sale. 150 comic books are sold at the comic book sale. Did the community group meet their fundraising goal? If so, by how much did they exceed their goal? If not, how much more do they need to raise? Discuss with a friend how you would go about solving this problem.



National Teacher Appreciation Day

Tuesday of the first full week of May

Today is National Teacher Appreciation Day, a day to celebrate and honor our teachers past and present, for not only teaching us, but making a difference in our society and our world, and for the special relationship they form with their students during the school year.

Question

For Teacher Appreciation Day, a group of students decides to make flower arrangements for each teacher at their school. They plan to use roses and daisies in each arrangement.

Each arrangement consists of 6 roses and 6 daisies.

The students have a total of 100 roses and 150 daisies.

They want to make arrangements for each teacher.

There are 12 teachers in the school.

Do they have enough flowers for the 12 teachers to receive arrangements with the correct amount of each flower? Could any extra arrangements be made? How many flowers would be left over? Discuss with a friend how you went about solving this problem.



Star Wars Day

May 4th

Today is National Star Wars Day, after the famous films that have remained a household favorite to this day since its debut in 1977. We celebrate National Star Wars Day on May 4th every year as it reminds us of the famous line “May the force be with you.”

Question

A group of friends decides to have a Star Wars movie marathon. They plan to watch the original trilogy, which consists of "A New Hope," "The Empire Strikes Back," and "Return of the Jedi."

"A New Hope" is 121 minutes long.

"The Empire Strikes Back" is 124 minutes long.

"Return of the Jedi" is 131 minutes long.

They want to have a 15-minute break after each movie to discuss, including the last movie.

How long will the entire movie marathon last, including breaks? Express your answer in hours.

Discuss with a friend how you would go about solving this problem. Can you find more than one way to solve it?



Mother's Day

Second Sunday in May

Today is Mother's Day, a day to honor our mothers, grandmothers, and every person in our lives that has taken care of us in some way, been there for us when we most need it and has acted as a mother to us.

Question

A family wants to make brunch for Mother's Day. They decide to make pancakes and fruit salad for the family members attending.

The recipe for pancakes serves 4 people, but they need to adjust it to serve 12 family members. The recipe for the pancakes is as follows:

Flour: 3 cups	Milk: $\frac{5}{8}$ cups
Eggs: 6	Sugar: $\frac{1}{4}$ cup
Baking Powder: 1 tbsp	Salt: $\frac{1}{2}$ tsp
Butter (melted): $\frac{1}{3}$ cup	Vanilla Extract: 1 tsp

How much of each ingredient will they need? Discuss with a friend how you would solve this problem.



Memorial Day

Last Monday in May

Today we honor and remember all those who have paid the great price, sacrificing their lives for our freedom by serving in our nation's Armed Forces. Many celebrate this day by going to memorial services, watching parades, and spending time with their families. Whatever way you celebrate, today is a day to feel gratitude for the freedom we are able to enjoy because of the bravery of others.

Question

A town is organizing a Memorial Day parade to honor veterans and fallen soldiers. The parade committee plans to have several floats, each representing different branches of the military. The Army, Navy, Air Force, Marines, and Coast Guard each have a float. Each float is decorated with 48 flags. The committee also decides to line the parade route with additional flags. They place one flag every 5 meters along the parade route, which is 1 kilometer long with 2 flags at the start. How many flags are there in total? Discuss with a friend how you would solve this problem.



Themed Spring Term - Answers

Day	Question	Answer
Read Across America Day	<p>For Read Across America Day, a class decides to start a book club. Each student in the book club commits to reading a certain number of pages each week.</p> <p>The book club has 15 students. In the first week, each student reads 25 pages. In the second week, each student increases their reading by 7 pages. In the third week, each student increases their reading by another 5 pages from the second week.</p> <p>How many total pages does the book club read collectively over the three weeks? Discuss with a friend how you would go about solving this.</p>	1,410 pages
International Women's Day	<p>In a company of 120 employees, $\frac{3}{4}$ of the employees participate in an International Women's Day seminar. If each participating employee contributes \$18 towards a charity supporting women's education, how much money does the company raise in total from its employees for the charity?</p> <p>Discuss with a friend how you would go about solving this problem.</p>	\$1,620 is raised for the charity

Day	Question	Answer
Pi Day	<p>A bakery prepares a special pie puzzle for Pi Day. They bake a large pie and cut it into different fractional pieces for their customers.</p> <p>The bakery cuts the pie into 8 equal slices.</p> <p>Then, they take 3 slices and cut each of these into half, creating smaller slices.</p> <p>A customer buys half of the original large slices and two of the smaller slices.</p> <p>What fraction of the whole pie does the customer buy? Discuss with a friend how you would go about solving this problem.</p>	The customer buys $\frac{5}{8}$ of the whole pie
St. Patrick's Day	<p>For St. Patrick's Day, a group of children decide to go on a mythical hunt for leprechaun gold. According to legend, each leprechaun hides his pot of gold at the end of a rainbow and each pot contains a different number of gold coins.</p> <p>The children find three leprechauns.</p> <p>The first leprechaun's pot contains twice the amount of gold coins as the second leprechaun's pot.</p> <p>The third leprechaun's pot contains the same amount of gold coins as the second leprechaun's pot.</p> <p>Altogether, the three leprechauns have 128 gold coins.</p> <p>How many gold coins did each leprechaun have? Discuss with a friend how you would go about solving this problem.</p>	The first leprechaun had 64 gold coins, and the second and third leprechauns each had 32 gold coins

Day	Question	Answer
April Fool's Day	<p>A group of friends decides to pull a series of harmless pranks at their school for April Fool's Day. They plan to place whoopee cushions on the seats in three classrooms. Each classroom has 24 chairs.</p> <p>In the first classroom, they put whoopee cushions on $\frac{1}{2}$ of the chairs.</p> <p>In the second classroom, they put whoopee cushions on $\frac{1}{3}$ of the chairs.</p> <p>In the third classroom, they put whoopee cushions on $\frac{3}{4}$ of the chairs.</p> <p>How many whoopee cushions do the friends use in total for the three classrooms?</p>	46 whoopee cushions
Easter	<p>A family decides to bake cookies and cupcakes for an Easter gathering. They have a tradition of baking a specific number of each based on the number of guests. They bake 4 cookies for each guest. They also bake 2 cupcakes for every 3 cookies.</p> <p>If they are expecting 15 guests at the gathering, how many cookies and cupcakes do they bake in total?</p>	60 cookies and 40 cupcakes

Day	Question	Answer
Earth Day	<p>A community decides to create a garden for Earth Day. The garden is designed in a square shape and is divided into sections for different types of plants: flowers, vegetables, and herbs.</p> <p>The side length of the garden is 15 meters.</p> <p>The flower section takes up $\frac{1}{3}$ of the garden's area.</p> <p>The vegetable section takes up $\frac{2}{5}$ of the garden's area.</p> <p>The remaining area is allocated for herbs.</p> <p>What is the area, in square meters, allocated for each section of the garden?</p>	<p>75 square meters for the flowers, 90 square meters for the vegetable section, and 60 square meters for the herbs.</p>

Day	Question	Answer
National Superhero Day	<p>To celebrate National Superhero Day, a local community group organizes a charity challenge to raise funds for a cause dedicated to helping families in need. Participants can choose among three activities: a fun run, a bake sale, or a comic book sale, with each activity contributing differently to the fundraising goal.</p> <p>Each participant in the fun run raises \$50 towards the fund.</p> <p>For the bake sale, each item sold contributes \$5 to the fund.</p> <p>Each comic book sold at the comic book sale contributes \$10 to the fund.</p> <p>The community group sets a goal to raise a total of \$5,000. On the day of the event:</p> <ul style="list-style-type: none">• 40 people participated in the fun run.• 300 items are sold at the bake sale.• 150 comic books are sold at the comic book sale. <p>Did the community group meet their fundraising goal? If so, by how much did they exceed their goal? If not, how much more do they need to raise? Discuss with a friend how you would go about solving this problem.</p>	The community group met their goal by making exactly \$5,000

Day	Question	Answer
National Teacher Appreciation Day	<p>For Teacher Appreciation Day, a group of students decides to make flower arrangements for each teacher at their school. They plan to use roses and daisies in each arrangement.</p> <p>Each arrangement consists of 6 roses and 6 daisies.</p> <p>The students have a total of 100 roses and 150 daisies.</p> <p>They want to make arrangements for each teacher. There are 12 teachers in the school.</p> <p>Do they have enough flowers for the 12 teachers to receive arrangements with the correct amount of each flower? Could any extra arrangements be made? How many flowers would be left over? Discuss with a friend how you went about solving this problem.</p>	All the teachers can receive flower arrangements, and 4 extra arrangements can be made; there are 4 roses leftover and 54 daisies leftover
Star Wars Day	<p>A group of friends decides to have a Star Wars movie marathon. They plan to watch the original trilogy, which consists of "A New Hope," "The Empire Strikes Back," and "Return of the Jedi."</p> <p>"A New Hope" is 121 minutes long.</p> <p>"The Empire Strikes Back" is 124 minutes long.</p> <p>"Return of the Jedi" is 131 minutes long.</p> <p>They want to have a 15-minute break after each movie to discuss, including the last movie.</p> <p>How long will the entire movie marathon last, including breaks? Express your answer in hours.</p> <p>Discuss with a friend how you would go about solving this problem. Can you find more than one way to solve it?</p>	7 hours, 1 minute

Day	Question	Answer
Mother's Day	<p>A family wants to make brunch for Mother's Day. They decide to make pancakes and fruit salad for the family members attending.</p> <p>The recipe for pancakes serves 4 people, but they need to adjust it to serve 12 family members. The recipe for the pancakes is as follows:</p> <p>Flour: 3 cups</p> <p>Milk: $\frac{5}{8}$ cups</p> <p>Eggs: 6</p> <p>Sugar: $\frac{1}{4}$ cup</p> <p>Baking Powder: 1 tablespoon</p> <p>Salt: $\frac{1}{2}$ teaspoon</p> <p>Butter (melted): $\frac{1}{3}$ cup</p> <p>Vanilla Extract: 1 teaspoon</p> <p>How much of each ingredient will they need? Discuss with a friend how you would solve this problem.</p>	<p>9 cups of flour, $1\frac{7}{8}$ cups of milk, 18 eggs, $\frac{3}{4}$ cup of sugar, 3 tablespoons of baking powder, $1\frac{1}{2}$ teaspoons of salt, 1 cup of melted butter, 3 teaspoons of vanilla extract</p>
Memorial Day	<p>A town is organizing a Memorial Day parade to honor veterans and fallen soldiers. The parade committee plans to have several floats, each representing different branches of the military.</p> <p>The Army, Navy, Air Force, Marines, and Coast Guard each have a float. Each float is decorated with 48 flags.</p> <p>The committee also decides to line the parade route with additional flags. They place one flag every 5 meters along the parade route, which is 1 kilometer long with two flags at the start.</p> <p>How many flags are there in total? Discuss with a friend how you would solve this problem.</p>	442 flags

Do you have a group of students who need a boost in math?

Each student could receive personalized lessons every week from our specialist one-on-one AI math tutor, Skye.




- ✓ Differentiated instruction for each student
- ✓ Aligned to your state's standards
- ✓ Scaffolded learning to close gaps

“We just had our first session and it went great! The kids really liked it and felt like they were learning! One even said he finally felt like math was making sense.”



Michelle Craig, Instructional Coach,
Sherwood Forest Elementary, Washington

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