November

Number Corner

November

Day 1 Day 2 Day 3 Day 4

Day 5 Day 6 Day 7 Day 8

Day 9 Day 10 Day 11 Day 12

Day 13 Day 14 Day 15

Day 1

CCI

Introducing the Unit Fraction Race

In this month's calendar collector, we will collect unit fractions. What is a unit fraction?

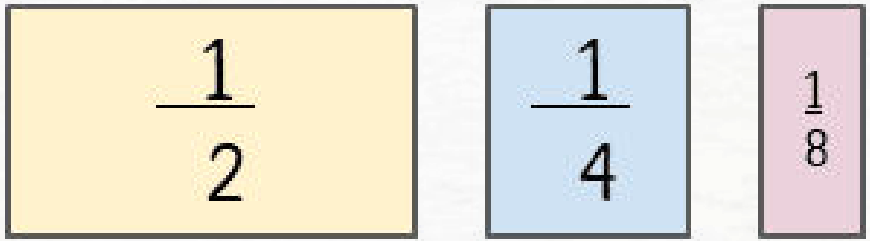
$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$

What do these unit fractions have in common? What do you think it might mean for a fraction to be a unit fraction?

Introducing the Unit Fraction Race

A unit fraction has a 1 in the numerator. It represents just 1 of some number of equal pieces of a whole.

The unit fraction 1/8 is 1 of 8 equal parts
¼ is 1 of 4 equal parts
And ½ is 1 of 2 equal parts



Introducing the Unit Fraction Race

Let's look at the open number lines I've created. How could we use our ½ unit fraction piece to mark ½ and 1?

Introducing the Unit Fraction Race

How could we use our ¼ unit fraction piece to mark ¼ and 1?

What about 1/8 and 1?

Introducing the Unit Fraction Race

- Each day, we will spin both spinners.
- The first tells how many pieces to collect, and the second tells what size piece to collect.
- The helper records the spins on the record sheet and writes an addition or multiplication equation to show how much the fraction pieces are worth in all.
- Then the helper takes the fraction pieces identified by the spins and puts them on the appropriate number line.
- The helper labels the ending point of their strips on the number line.

Introducing the Unit Fraction Race

Let's try a sample collection for Day 1!
In the future, student helpers will spin and fill in the number lines.

Day 2

CG I

Calendar Grid

This month's calendar grid will help us investigate factors, products, and arrays. Let's look at the markers from all the days in November through today.

What do you notice?

Calendar Grid

Each day, student helpers or I will fill in information on our observation sheet. Let's start!

CALENDAR GRID OBSERVATIONS

DATE	COLOR	HEIGHT x LENGTH	AREA	SQUARE?	OBSERVATIONS

Day 3

SPI

Introducing Equations with Variables

This month, our Solving Problems workout will focus on solving story problems. We will need to:

- Figure out what the story problem means
- Locate information needed to solve the problem
- And develop a strategy for solving the problem.

What does problem solving mean to you?

Introducing Equations with Variables

equation

$$4 = 2 + 2$$
$$3 + 1 = 4$$
$$3 + 1 = 2 + 2$$
$$25 + \_\_ = 40$$
$$50 = a \times 2$$

equation: a mathematical statement asserting that two quantities have the same value

When have we written equations before?

Introducing Equations with Variables

$$4 \times 6 = t$$

Try to solve these!

$$4 \times 6 = 24$$

Try to solve these!

$$4 \times 6 = 24$$

Try to solve these!

$$3 \times 5 = 15$$

Try to solve these!

17 - 7 = 10

Try to solve these!

$$25 + 25 = 50$$

What could the variable be?

Brian has $24. He wants to buy a game that costs $50. How much more money does Brian need to be able to buy the game?

Which equation could be used?

Story Problems with Equations

Brian has $24. He wants to buy a new game that costs $50. How much more money does Brian need to be able to buy the game?

1 Choose the equation that best matches the problem.

a $24 \times m = 50$

b $24 + m = 50$

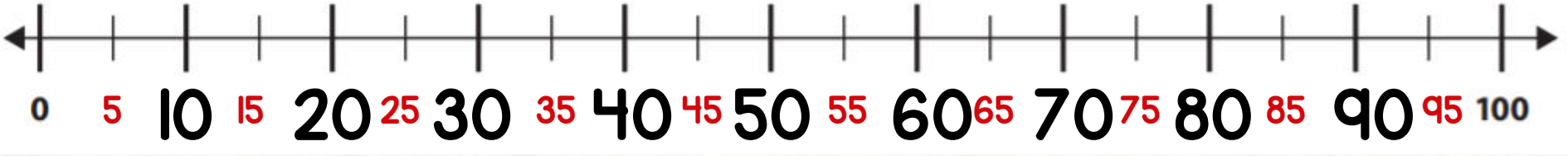
c $24 + 50 = m$

d $50 - m = 24$

Day 4

NL I

What numbers can fill in the number line?



How can we round?

Day 5

Update CG, CC

Update

Let's update our calendar grid observations and calendar collector with unit fractions.

Day 6

CC 2

Unit Fraction Race

Let's look at our calendar collector activity. Fractions greater than <u>one</u> can be labeled as a mixed number or an improper fraction.

mproper fraction $\frac{3}{2}$ $\frac{25}{7}$ $\frac{108}{107}$ $\frac{5}{4}$

nproper fraction: a fraction greater than 1
at is not expressed as a mixed number;
fraction in which the numerator is larger
an the denominator

mixed number $1\frac{1}{2}$ $3\frac{4}{7}$ $1\frac{1}{107}$ $1\frac{1}{4}$

mixed number: a number greater than 1 expressed as a whole number plus a fraction whose value is less than 1

Unit Fraction Race

Let's fill in the names of the fractions we have on our number line.

Which number line do you think will be most full by the end of the month?

About how far do you think we will get on each number line by the end of November?

Day 7

SP 2

What could m be?

$$3 \times m = 24$$

Solving Problems

Field Trips page 1 of 2

Tanika's third grade class is going on a field trip to the science museum. Help Tanika answer the following questions. For each question, be sure to show your work using pictures, numbers, or words.

1 Tickets to the museum cost $7 each. There are 8 students in Tanika's group. How much does it cost for Tanika's group to go to the science museum?

a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

Today you will solve problems by writing equations. Turn to page 16 in your Number Corner book.

Solving Problems

2 Tanika's group is studying animals. They visit two exhibits with turtles. There are 51 turtles in all. There are 25 turtles in one exhibit. How many turtles are in the other exhibit?

a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

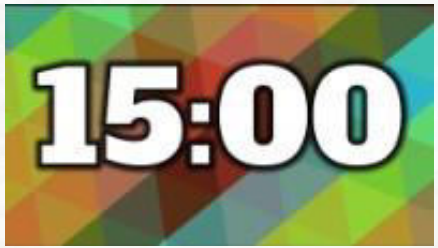
3 There are 27 students in Tanika's class. At lunch, they sit at 3 tables. If the same number of students sits at each table, how many students are at each table?

a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

You will work with a partner to complete page 17. We will review our work in a few days!



Day 8

NL 2

Playing Round & Add

Round & Add

Teacher	Students
Estimated Score:	Estimated Score:
Exact Score:	Exact Score:

What do you notice about this game sheet?

Let's label the multiples of 10.

Playing Round & Add

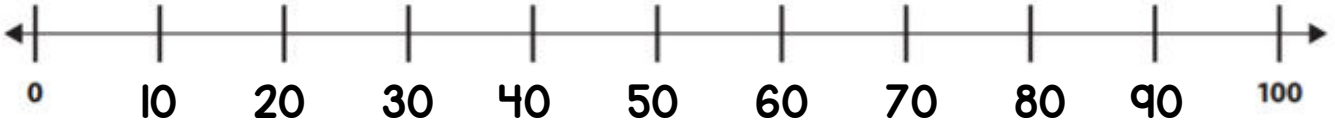
Round & Add

Teacher	Students
Estimated Score:	Estimated Score:
Exact Score:	Exact Score:

Directions

1. Roll a die 1-6 and one from 4-9.
2. Create a 2-digit number and place it on the number line.
3. Circle the multiple of 10 that is closer using your color.
4. Once a multiple is claimed, it cannot be claimed again.
5. You can choose 1 or 2 dice to claim 0 or 10.
6. After all multiples have been claimed, predict who will have the higher total. Then find the sum of your numbers. The higher sum wins!

Teacher vs. Class



Teacher	Students
Estimated Score:	Estimated Score:
Exact Score:	Exact Score:

Playing Round & Add

Rounding can be very helpful when you don't need an exact answer. We will continue using rounding during the rest of the month!

Day 9

SP 3

Discussing Problems with Equations

2 Tanika's group is studying animals. They visit two exhibits with turtles. There are 51 turtles in all. There are 25 turtles in one exhibit. How many turtles are in the other exhibit?

a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

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a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

Reopen to page 17. Finish the page if you need. Then we will have a class discussion about how you solved these problems.

Some students will share today and the rest will be audience members!

Discussing Problems with Equations

2 Tanika's group is studying animals. They visit two exhibits with turtles. There are 51 turtles in all. There are 25 turtles in one exhibit. How many turtles are in the other exhibit?

a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

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a What is this problem asking you to figure out? Underline any information that can help you solve the problem.

b Write an equation that represents the problem. Write your equation with a letter that stands for the unknown quantity.

c Solve the problem. Show your work.

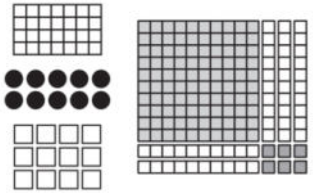
Let's share and listen!

Day 10

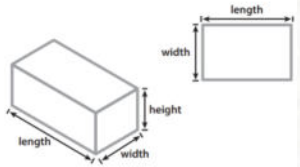
CG 2

Exploring Patterns

array



dimension

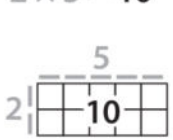


area

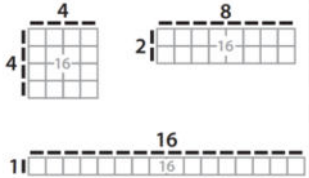
product

$2 \times 5 = 10$

$$\begin{array}{r} 2 \\ \times 5 \\ \hline 10 \end{array}$$



factor



What do you notice about our calendar markers now that we have revealed more arrays?

Exploring Patterns

To find the area of a rectangle, you can multiply the dimensions:

length x width

Predict!

Use your small number chart to make a prediction of a future calendar marker.

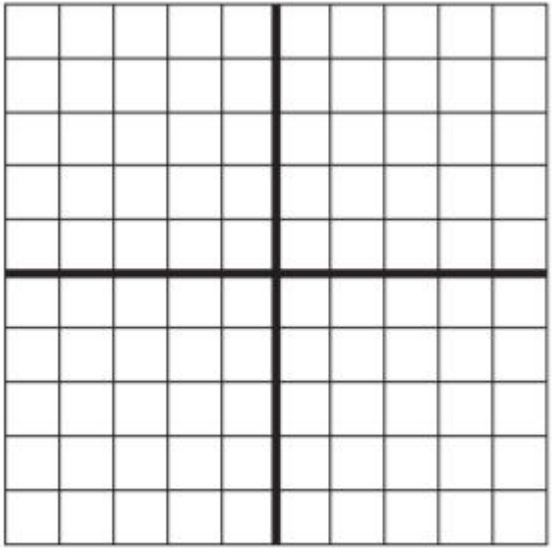
Label the:

-dimensions

-area

-the date you are predicting

Use the correct color for your prediction!



Day 11

CF I

troducing Array Race

Player 2 _____

ation:

Equation:

ation:

Equation:

ation:

Equation:

dd the products from each round to find your score.

Player 1's Score	Player 2's Score

Array Race

Today we will play a game to practice our multiplication in a fun way!

What do you notice about the game board?

troducing Array Race

Player 2 _____

ation:

Equation:

ation:

Equation:

ation:

Equation:

dd the products from each round to find your score.

Player 1's Score	Player 2's Score

Array Race

Directions

1. Roll 2 dice (one 1-6 and one 4-9) to find the dimensions of your array.
2. Sketch and shade the array. Write an equation to find the area.
3. After 3 rounds, roll the More or Less die to find out how to determine the winner.

troducing Array Race

1 _____ Player 2 _____

ation: Equation:

ation: Equation:

ation: Equation:

Add the products from each round to find your score.

Player 1's Score	Player 2's Score

Teacher vs. Class

Let's play!
We will mark our arrays starting at the star.

Day 12

CC 3

Equivalent Fractions and Number Lines

Let's look at our number lines we have created this month.

What do you notice? What predictions do you have for the rest of the month?

Equivalent Fractions and Number Lines

Now let's explore equivalent fractions.

We can use the number line to find fractions that represent the same number.

How many eighths are equal to ¾?

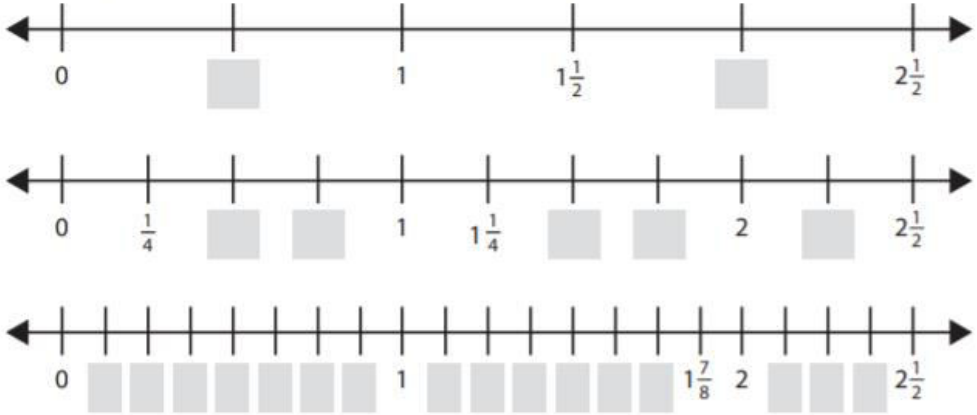
How many fourths are equal to 1 ½? Is there another equivalent fraction?

Equivalent Fractions and Number Lines

Turn to page 12 in your Number Corner books. Work on this page independently.

Fractions on a Number Line

1 Label the missing numbers on these number lines. You can use improper fractions or mixed numbers (or both) to label the numbers greater than 1.



Day 13

NL 3

Review: Round & Add

Round & Add

Teacher	Students
Estimated Score:	Estimated Score:
Exact Score:	Exact Score:

Directions

1. Roll a die 1-6 and one from 4-9.
2. Create a 2-digit number and place it on the number line.
3. Circle the multiple of 10 that is closer using your color.
4. Once a multiple is claimed, it cannot be claimed again.
5. You can choose 1 or 2 dice to claim 0 or 10.
6. After all multiples have been claimed, predict who will have the higher total. Then find the sum of your numbers. The higher sum wins!

Review: Round & Add

Round & Add

Teacher	Students
Estimated Score:	Estimated Score:
Exact Score:	Exact Score:

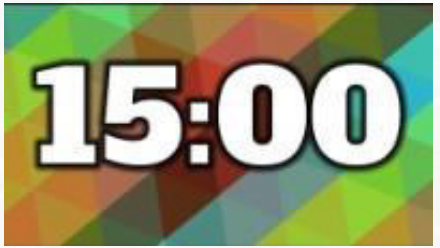
How would you round the following numbers?

- 18
- 33
- 55
- 91
- 86

Round & Add in Pairs

Today you will get to play Round & Add with a partner.

Turn to page 15 in your Number Corner books.



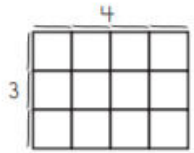
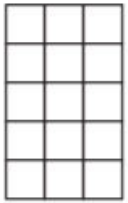
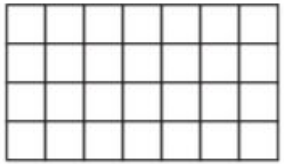
Day 14

CG 3

Multiplication Concepts and Arrays

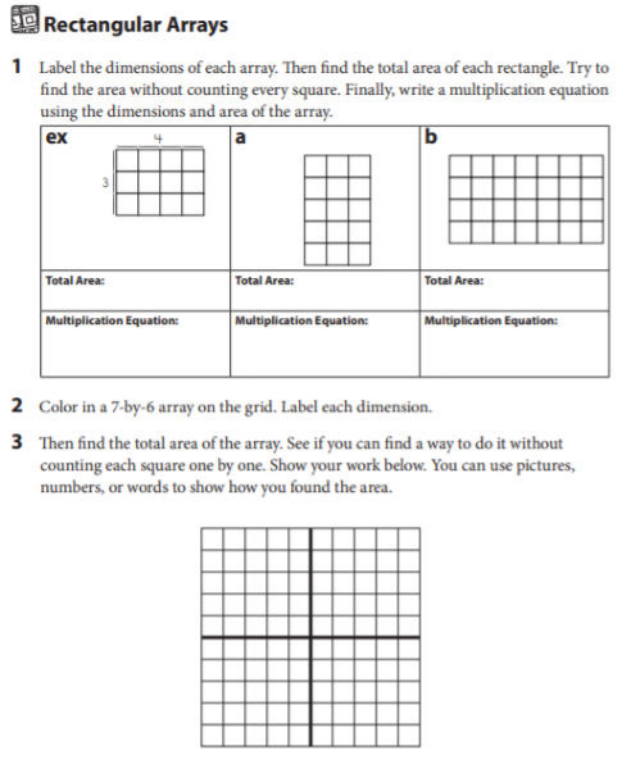
Rectangular Arrays

1 Label the dimensions of each array. Then find the total area of each rectangle. Try to find the area without counting every square. Finally, write a multiplication equation using the dimensions and area of the array.

ex	a	b
		
Total Area:	**Total Area:**	**Total Area:**
Multiplication Equation:	**Multiplication Equation:**	**Multiplication Equation:**

We will work on an activity that reviews the big ideas we've discussed this month.

Multiplication Concepts and Arrays



Rectangular Arrays

1 Label the dimensions of each array. Then find the total area of each rectangle. Try to find the area without counting every square. Finally, write a multiplication equation using the dimensions and area of the array.

ex	a	b
4, 3		
Total Area:	Total Area:	Total Area:
Multiplication Equation:	Multiplication Equation:	Multiplication Equation:

2 Color in a 7-by-6 array on the grid. Label each dimension.

3 Then find the total area of the array. See if you can find a way to do it without counting each square one by one. Show your work below. You can use pictures, numbers, or words to show how you found the area.

Turn to page 11. Once I read over the directions, you may begin working.

If you finish early, you can read to yourself.

Day 15

CF 2

troducing Array Race

Player 2 _____

tion:

Equation:

tion:

Equation:

tion:

Equation:

dd the products from each round to find your score.

Player 1's Score	Player 2's Score

Array Race

Today you will play Array Race with a partner!

troducing Array Race

Player 2 _____

ation:

Equation:

ation:

Equation:

ation:

Equation:

dd the products from each round to find your score.

Player 1's Score	Player 2's Score

Array Race

Directions

1. Roll 2 dice (one 1-6 and one 4-9) to find the dimensions of your array.
2. Sketch and shade the array. Write an equation to find the area.
3. After 3 rounds, roll the More or Less die to find out how to determine the winner.

troducing Array Race

1 _____ Player 2 _____

ation:

Equation:

ation:

Equation:

ation:

Equation:

Add the products from each round to find your score.

Player 1's Score	Player 2's Score

Partner Game

Let's play!
Remember to mark your arrays starting at the star.