

4th Grade

Learning

Guide

Math

Grade: 4 Subject: Math

Topics:

- Add, subtract, multiply, and divide multi-digit numbers
- Read and write whole numbers in expanded, standard, and word form
- Finding factors and multiples
- Finding equivalent fractions
- Comparing numbers

What Your Student is Learning:

- This packet really focuses on numbers and operations, which students do a lot of in 4th grade. As you work through it, do not feel like you have to do every problem. Less is more! And, if you feel like students are struggling with a particular topic, you can slow down and focus there, and make up more problems to try. Coming out of this packet, the goal would be for students to have strategies to add, subtract, multiply, and divide whole numbers. They would also understand place value and different ways to write and break apart numbers.

Background and Context for Parents:

Day	Notes
Day 1	<p>Place value blocks help students to visualize the numbers and how they are related to each other. It takes 10 of the small squares to make 1 rod, and 10 rods to make one flat hundred.</p> <p>As an extension, you could ask if there is another way they could build the number. For example, yes, 243 is 2 hundreds, 4 tens, and 3 ones. It also could be 1 hundred, 14 tens, and 3 ones! (There is a typo in the example, it should say 243)</p> <p>When completing the Chart, ask students to read the numbers out loud. Often times students can write the numbers but struggle to say them</p>
Day 2	<p>Students might need extra space to solve the problems on this page, and throughout the packet, so provide paper rather than making them squeeze it in!</p> <p>The “Standard Algorithm” is the way we all learned to add. This is a strategy that receives less emphasis with the common core, but it IS required in 4th grade.</p> <p>Ideally students should be able to see how the Standard Algorithm relates to the visual blocks. They combine the ones and the ones. If there are more than 10 ones, then they regroup them into another ten. Then they add the tens with the tens and if there are more than 10 tens, then they regroup them into another hundred...</p>
Day 3	<p>Decimals are new in 4th grade, so this may be challenging. #1 tells them that the entire square = 1. That means that each small square is 0.01 and each column of 10 small squares = 0.1. Since there are two squares, you might ask them to use the second one to practice shading 0.27.</p> <p>A Part-Part-Whole Diagram is where the two parts combine to make the whole. In</p>

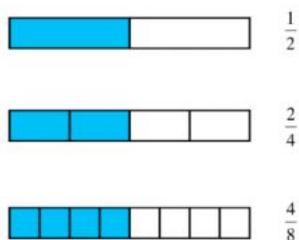
	<p>this case, you know one part and you know the whole. So, the whole, minus the part, equals the other part.</p> <p>Question #4 is important not for computation, but for making sense of the word problem. Read the problem aloud. What is it about? What is it asking? Can you represent it with a picture? How would you solve it? (Division)</p>
Day 4	<p>Most of this is a continuation of the content from pages 1-3. A couple of things are new. First, in number 4, this idea of “times as many” is a new idea in 4th grade. If I have 5 cookies and you have 4 times as many, you have: $4 \times 5 = 20$. If I have 20 cookies and that is 4 times as many as you, you have: $20 \div 4 = 5$</p> <p>Then, in #5, this is important because if I know my basic facts, like 7×4, I can use them to find 7×40 (which is $7 \times 4 \times 10$), and 7×400 (which is $7 \times 4 \times 100$).</p>
Day 5	<p>For problem #1, allow students to solve it any way they want. The standard algorithm for multiplication that you likely learned in school is not how we typically encourage multiplication in 4th grade. The multiplication progression might help you to understand: https://gfletchy.com/progression-videos/ This song also digs into the area model specifically: https://www.youtube.com/watch?v=WYJsQo7ZTC4</p> <p>Often times in math class, students do problems that are all the same -- all multiplication problems in one unit, all addition in another. Because these worksheets mix them all up, you might ask how they knew what was happening in the problem and how they chose what operation to do.</p> <p>#4 is challenging because it is two steps. Often, students will do 3×30 and say the answer is 90. That is just Elisa’s points, though!</p>
Day 6	<p>For #1, notice if your student knows $7 \times 5 = 35$ and uses that fact, or if they multiply it all out bit by bit.</p> <p>For #2, ask how they knew they were supposed to multiply to solve.</p> <p>For #3 and #4, notice what strategies they use. Ask them to explain how they solved the problems.</p> <p>For #5, the intention is not to use a long division strategy. Students should realize that they know $24 \div 4$, $24 \div 6$, and $24 \div 2$, and use those facts to help them to solve.</p> <p>For #6, ask what is happening in the problem. How did they know to divide?</p> <p>**This packet largely glosses over division, which is a key new concept in 4th grade. Students should be able to divide by single digits, with and without remainders. For example, $1230 \div 5$ and $528 \div 4$. If you want to practice this more, you can create your own problems. See these resources to boost your own understanding of the strategies that students learn for division in 4th grade:</p> <p>Students learn strategies that are different from what we learned, so ask them how they divide. Ask them to show you their strategies. The division progression here might help you to understand: https://gfletchy.com/progression-videos/ or, this video might help you with partial quotients specifically: https://www.youtube.com/watch?v=F0vb5hyzA_Q</p>

Day 7

When they draw a diagram of $\frac{1}{3}$, ask if they can draw another and another. There are lots of ways to model $\frac{1}{3}$. An **area model** could be a circle or rectangle divided into 3 **equal** sized pieces with one shaded. They could also draw a **set model** of 3 objects where one is shaded. Or, they could draw a number line and show $\frac{1}{3}$.

Factors are numbers that multiply to get another number. So, factors of 6 are 1, 2, 3, and 6 since 1×6 and 2×3 equal six.

Equivalent fractions are important because they will help us in 5th grade when we add and subtract with unlike denominators. In 4th, almost all denominators are the same. Here is a sample of models to prove that three fractions are equivalent:



Day 8

For #1-4, just like in Day 7, there are a range of acceptable models. Ask students if they can model the same number in multiple ways.

Here is a sample of a place value chart that could be helpful to create to help students with #5-8

Ten Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point "and"	Tenths	Hundredths	Thousandths
					•			

For #9 and 10, students should think about place value. They can also think about where the numbers go on a number line. The farther to the right, the larger the number.

For #11-12, students can model the pictures like shown in day 7 to help.

Day 9

This is a fun hands-on activity to show that the numbers 24 and 36 can be broken apart into different arrays, giving us the different factors. Be sure to provide the coins so students can physically move them around. This is a great connection to **area** as well.

When you get to the part with multiples, basically students are skip counting. You might continue to practice skip counting throughout the day, while walking around or climbing stairs. Skip counting can help them to memorize their basic facts if they don't have them memorized already.

Be sure to ask: What are factors and what are multiples? Help them to tell the difference between the two.

Day 10

Be sure to discuss the question about what the multiples of 2, 3, and 4 have in common. What do they notice? Any patterns? Why do they think those patterns exist? For example -- all of the multiples of 4 are also multiples of 2! Why is that?!

All of this work with factors and multiples is just a good way to practice fact fluency.

This is a fun game to play to practice more:

<https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Factor-Game/> (change the rows and columns to size 10).

Ways to support your student:

- Read the problem out loud to them.
- Remember, focus on strategies instead of answers. We want students to understand and be flexible with numbers.
- Before giving your student the answer to their question or specific help, ask them “What have you tried so far? What do you know? What might be a next step?”
- After your student has solved it, and before you tell them it’s correct or not, have them explain to you how they got their solution and if they think their answer makes sense.
- Understand that your student may have learned strategies that are different than what you learned as a child. Rather than showing them what you learned, ask them questions about their strategies. Try to understand what they know and why it works.

Some Online Resources for Parents and Students:

- Amazing videos to show you how content progresses. Learn about the different strategies and algorithms:
<https://gfletchy.com/progression-videos/>
- Fun game for factors and multiples:
<https://www.nctm.org/Classroom-Resources/Illuminations/Interactives/Factor-Game/>
- Song to explain area models for multiplication
<https://www.youtube.com/watch?v=WYJsQo7ZTC4>
- Games to practice 4th grade math:
<https://www.splashlearn.com/math-skills/fourth-grade>
- This is a cool tool for area models. You will have to play around with it to understand:
<https://apps.mathlearningcenter.org/partial-product-finder-beta/>

Learning Support for Mathematics

For students that are approaching grade level and have learning gaps/ differences in mathematics, provide numerous opportunities for explorations at the concrete (manipulatives) and representational (visual) levels before progressing to the abstract (numbers) level. Students that need learning supports should be provided with:

- Intensive Direct Instruction and daily guided practice
- scaffolded supports
- the use of visuals as models and aids
- numerous opportunities to think out loud
- support to help them understand the why
- use of manipulatives and tools to support understanding
- Bar Modeling Representations to decode word problems
- the use of mnemonics to enhance retention of skills
- daily practice with basic facts
- the presentation of content in varied contexts and varied levels
- opportunities to use diagrams and draw math concepts
- graph paper to support understanding

- numerous opportunities to draw pictures of word problems
- the use of smaller numbers to address number operations
- opportunities for success to build a growth mindset
- computer time to allow for needed practice
- opportunities to engage in metacognition (the building and reinforcing of thinking and reasoning) skills

See examples for each bulleted item below:

- **Intensive Direct Instruction and daily guided practice**

(Intensive Direct Instruction means to explain the skill / concept to the student with several examples repeatedly to help them understand)

https://youtu.be/F_HzrRBOU7I / https://youtu.be/OJJkkUPC_yM

- **Scaffolded Supports**

(Scaffolded supports means to introduce the skill one step at a time – allowing the student to understand one section part, before moving on to

the next part) ex. $5+1=6$, $9+1=10$, $24+1=25$ - it is the same as “what number comes after 5, after 9, after 24

https://youtu.be/5hWDbSx_kdo

- **Visuals as models and aides**

(Pictures of objects that can be used to help students understand the math)

<https://studentsatthecenterhub.org/resource/helping-struggling-students-build-a-growth-mind-set/>

- **Thinking out loud**

(Allows students to talk and think about the skills they are learning, which allows them to better remember the skill)

<https://youtu.be/f-4N7OxSMok>

- **Understanding the why**

(When students understand why a strategy works, they will apply it to other skills) ex. $5x = 5$, $45x1=45$, $320x1=320$

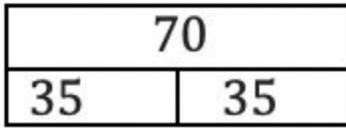
- **Manipulatives and Tools**

(Manipulatives can be counters, beans, blocks, etc. – Tools can be rulers, calculators, scales, etc.) <https://youtu.be/uWBZF-Lyq58>

- **Bar Modeling Representations**

(Bar Modeling Representations consist of visuals that help students understand the skill they are learning.)

Ex.



https://youtu.be/TbayTZvS_bc

- **Mnemonics**

(Mnemonics consist of strategies to help students remember skills – ex.)



<https://youtu.be/dXvvGc9TIdY>

- **Basic Facts**

(Basic facts include addition, subtraction, division, multiplication facts – ex. $8+2=10$, $2+8=10$, $10-2=8$, $10-8=2$ / $2 \times 5=10$, $5 \times 2=10$, $10/2=5$, $10/5=2$)

https://youtu.be/TbayTZvS_bc

- **Content with varied contexts and varied levels**

Means to show student how to solve a problem different ways to allow them to use the skill that way they understand best

<https://youtu.be/FVg9n0IGf0>

- **Diagrams**

(Diagrams provide students with visuals / pictures that help them solve the problem and they help them read the problem with less words)

https://youtu.be/TbayTZvS_bc

- **Graph paper**

(Graph paper helps students to solve the problem by making it visual / easier to see the answer)

<https://youtu.be/mX43cn3IASI>

- **Drawing Pictures**

(Drawing pictures allow students to show they can solve the problem without using words that they may not know or be able to write)

https://youtu.be/TbayTZvS_bc

- **Smaller Numbers**

(The use of smaller numbers can help students understand the process of a skill, so that when they move on to bigger numbers, they will see that the process is still the same, they acquire understanding of the skill) ex. $5x = 5$, $45x1 = 45$, $320x1 = 320$

- **Growth Mindset**

(A growth mindset is a process that helps to improve intelligence (thinking), ability (skill) and performance (actions). This means that by helping students to develop a growth mindset, we can help them to learn to think and be problem solvers. This is a process that occurs over time by helping them improve by building success over time.

<https://studentsatthecenterhub.org/resource/helping-struggling-students-build-a-growth-mindset/>

- **Computer Time**

(Computer time allows students to use websites, games, activities that will help them learn math skills and concepts)

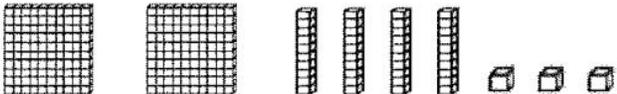
mathgametime.com, pbs.com, bestkidsolutions.com, firstinmath.com, helpingkidsrise.org

- **Metacognition**

(Metacognition means to help students think about what they are thinking, the steps they are using, the words and numbers that they are using- It helps students to better focus on the skills they are using- it is a process that occurs over time) / <https://youtu.be/HKFOhd5sMEc/>

<http://www.spencerauthor.com/metacognition/>

Draw the base ten blocks that go with these expanded numbers.

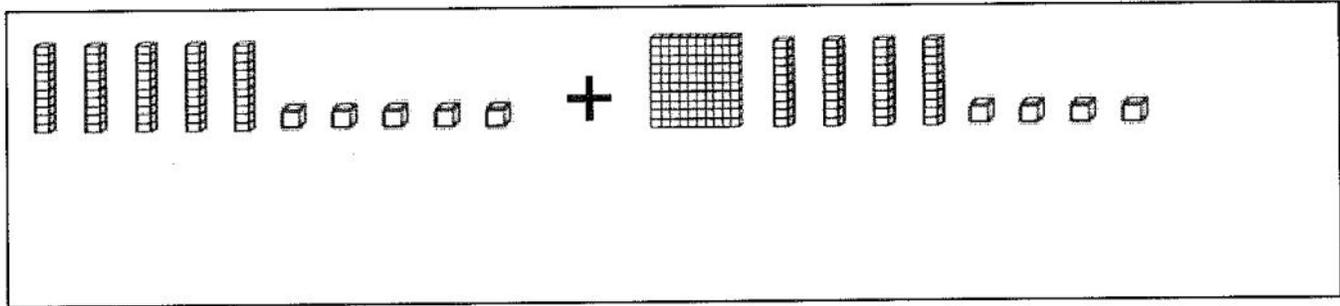
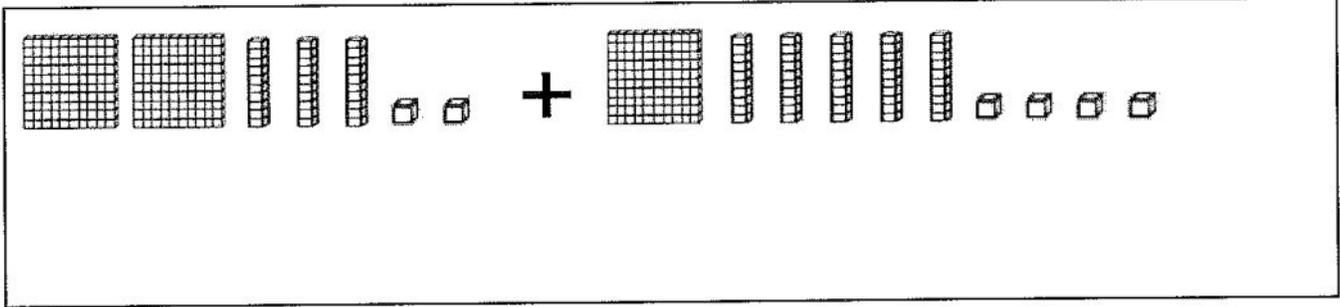
<p>Example: $200 + 40 + 3 = 143$</p> 
$400 + 70 + 8 =$
$300 + 40 + 2 =$

Complete the Chart

Standard Form	Word Form	Expanded Notation
345	Three Hundred Forty-Five	$300 + 40 + 5$
	One Thousand, Five Hundred Seventeen	
789		
		$200 + 80 + 3$

You have four digits: 3 8 1 5
 Use all four of these digits to write the largest and the smallest number you can.

Part 1: Write & solve the equation that goes with the base-10 addition problems.



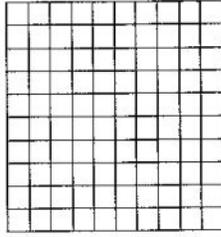
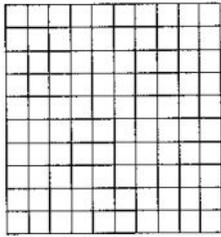
Part 2 Solve these problems using the standard algorithm.

<p>Find the sum: $14,576 + 15,032$</p>	<p>Find the sum: $46,576 + 34,236$</p>
---	---

On Saturday 24,327 went to a Giants game. On Sunday 28,512 people went to the game. How many people went to the game all together?

How is adding with base ten blocks similar to adding using the standard algorithm?

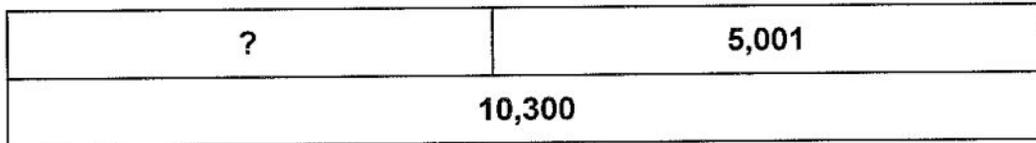
1. Shade in 0.9, if  = 1



2. Write the sum:

_____ = 8,000,000 + 300,000 + 40,000 + 1,000 + 600 + 10 + 8

3. Find the missing number to make this part-part-whole diagram.



4. There are 72 packs of gum for sale at the corner store. Each pack has 8 sticks of gum. How many sticks of gum are there for sale at the corner store?

1. Find the sums or differences.

$3,524 + 2,031 =$

$7,586 - 2,031 =$

2. Write the sum:

$\underline{\hspace{10em}} = 50,000 + 3,000 + 300 + 50 + 3 + .5$

3. Write the number 75,302 in expanded form and in word form.

expanded form:

word form:

4. There are 4 packs of gum for sale at Big Mel's store. Safeway has 8 times as many packs of gum for sale as Big Mel's Store. How many packs of gum are for sale at Safeway? Show how you solved this problem.

5. $7 \times 4 = 28$.

What is $7 \times 40 =$ _____ . What is $7 \times 400 =$ _____

1. Using base-10 block notation, show 41×52

2. The populations of five cities in California are listed below. What is the combined population of San Francisco and San Jose?

City	Population
Los Angeles	3,928,864
San Diego	1,381,069
San Jose	1,015,785
San Francisco	852,469
Fresno	515,986

3. Follow the pattern and find the missing numbers.

515,986	515,886	_____	515,686	_____	_____
---------	---------	-------	---------	-------	-------

4. Angela and Elisa are playing a game of basketball. Angela scored 30 points. Elisa scored three times as many points as Angela did.

How many points did Elisa and Angela score all together?

Show how you figured this out.

1. At the school cafeteria, each student who ordered lunch gets 7 chicken nuggets. The cafeteria staff prepares for 500 students.

How many chicken nuggets does the cafeteria prepare altogether?

2. Jayna has fifty times as many stickers as her cousin. Jayna's cousin has 5 stickers.

How many stickers does Jayna have?

3. Find the sum.

$$75,320 + 2,680 =$$

4. Find the product.

$$753 \times 5 =$$

5. Find the quotients.

a.) $240 \div 4 =$

b.) $240 \div 6 =$

c.) $240 \div 2 =$

6. Jayna has 36 chicken nuggets and wants to share them with six of her lunchroom friends, how many chicken nuggets will each friend have to eat?

1. Draw a diagram that represents $\frac{1}{3}$.

2. What are the factors of 10?

What are the factors of 25?

What are the factors of 125?

Which number 10, 25, or 125 has the most factors?

3. A female mountain gorilla weighs 397 pounds. A male mountain gorilla weighs 3 times as much. How much does the male gorilla weigh?

4. Find the product or quotient.

a. $102 \times 29 =$

b. $5055 \div 5 =$

5. On the lines provided write fractions equaling $\frac{1}{4}$ and $\frac{3}{6}$.

1. Draw a diagram that represents 2.

2. Draw a diagram that represents 1.

3. Draw a diagram that represents $1\frac{1}{2}$.

4. Draw a diagram that represents $1\frac{3}{4}$.

5. What is the place value of 5 in 5,261?

6. What is the place value of 5 in 2,156?

7. What is the place value in 5 in 1,516?

8. How is the 2 in the number 582 different from the 2 in the number 528?

9. Put the following numbers on the number line in order greatest to least.

201, 478, 582, 326, 778



10. Which symbol makes this sentence true? $>$ $<$ $=$ $+$

239,475 _____ 240,467

11. In the boxes below circle the fraction that is equal to $\frac{1}{2}$:

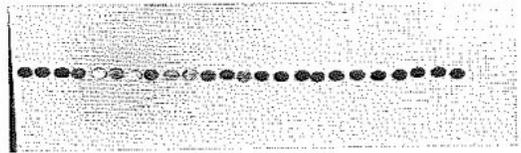
$\frac{3}{6}$	$\frac{2}{3}$	$\frac{5}{6}$
---------------	---------------	---------------

12. In the boxes below circle the fraction that is equivalent to $\frac{2}{3}$:

$\frac{4}{9}$	$\frac{4}{6}$	$\frac{1}{3}$
---------------	---------------	---------------

NOTE: In this case the words "equal" and "equivalent" mean the same thing.

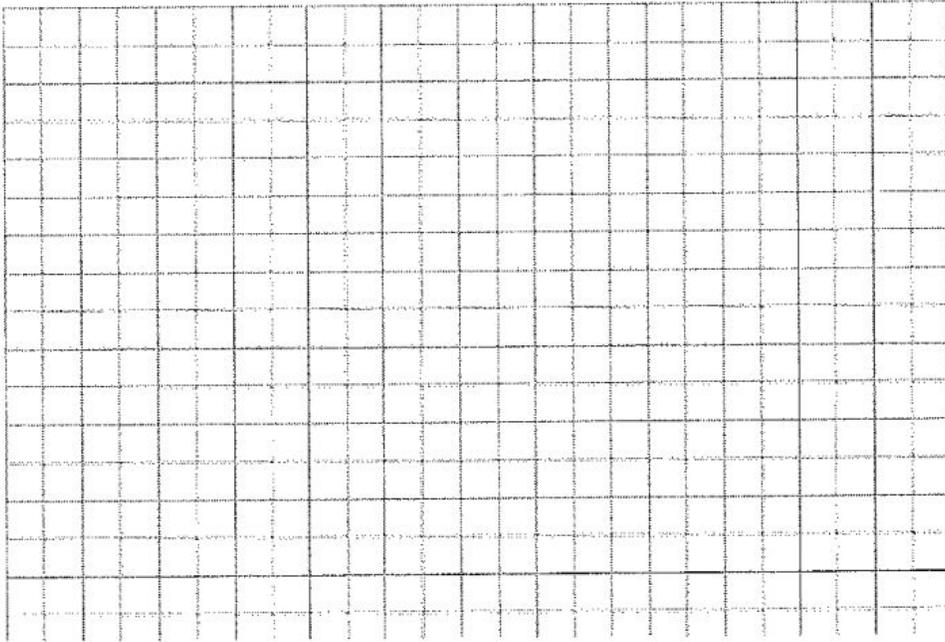
Use 24 pennies (or other objects) and make all the possible arrays. Record the number of rows and columns in the table below.



Number of Rows	Number of Columns	Factors	Product
1	24	1, 24	24

List all the factors of 24: _____

Choose 1 of the arrays you created with pennies and draw it below.

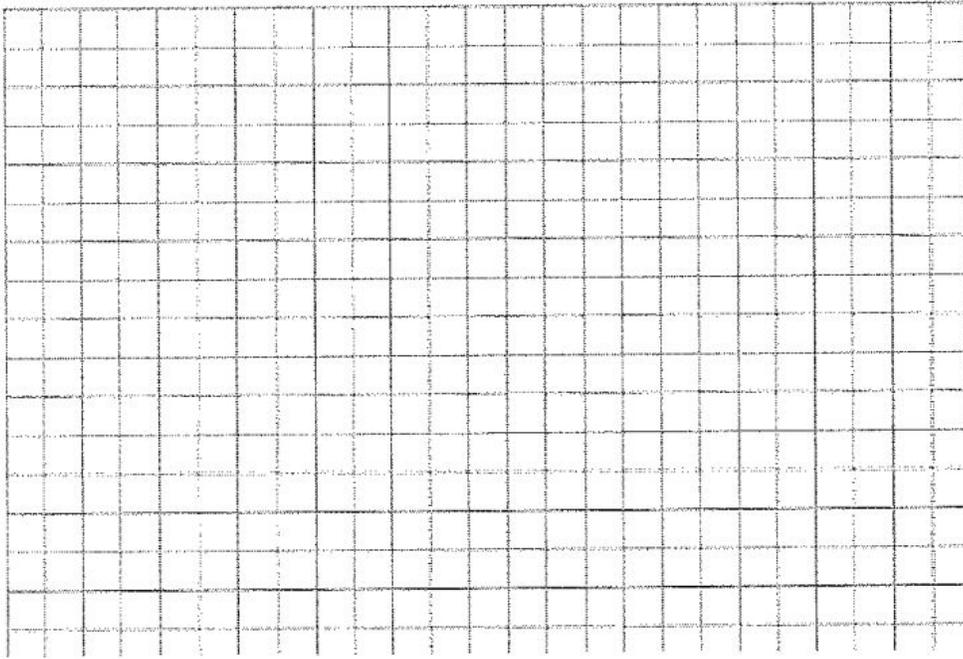


Use 36 pennies or other small objects and make all the possible arrays.

Number of Rows	Number of Columns	Factors	Product

List the factors of 36: _____

Choose 1 of the arrays you created with pennies and draw it below.



The multiples of a number are the numbers you get when you multiply by that number. For example:

The multiples of 2 are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

List the multiples of 3:

List the multiples of 4:

List the multiples of 5:

List the multiples of 6:

List the multiples of 8:

List the first 10 multiples of the number 2 (put them in the boxes provided; the first multiple has been done for you).

2									
---	--	--	--	--	--	--	--	--	--

List the first 15 multiples of the number 3 (put them in the boxes provided; the first three multiples have been done for you).

3	6	9												
---	---	---	--	--	--	--	--	--	--	--	--	--	--	--

List the first 10 multiples of the number 4 (put them in the boxes provided; the first two multiples have been done for you).

4	8								
---	---	--	--	--	--	--	--	--	--

Which factors do the numbers 2, 3, and 4 have in common, and how do you know?

Karla enjoys reading and wants to share the gift of enjoying reading with a few of her friends. Karla has saved \$25 and will spend \$8.50 per Harry Potter book; she will buy three books, one for each of her friends.

Each book costs \$8.50. Karla has \$25 to spend on books. Does Karla have enough money to buy three books? How do you know?

Here is an example of the factors for 8

1, 2, 4, 8

Reasoning; $1 \times 8 = 8$, and $2 \times 4 = 8$. So the factors of 8 are: 1, 2, 4, 8

What are the factors of 10?

What are the factors of 5?

What are the factors of 25?

What are the factors of 50?

What are the factors of 27?

Which number 5, 10, 25, 50 or 75 has the most factors? Explain your thinking (Below):

4. Find the answers.

$12,345 + 456,045 =$

$210 \times 21 =$

$560,450 - 34,872 =$

$20 \times 210 =$

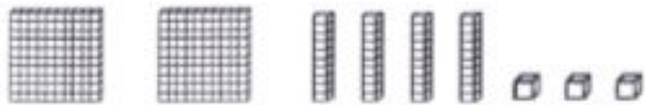
ANSWER

KEY

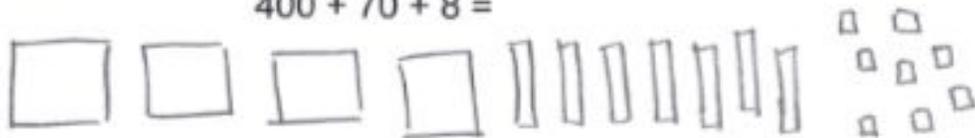
Math Grade 4 Day 1: Read and Write Multi-digit Numbers

Draw the base ten blocks that go with these expanded numbers.

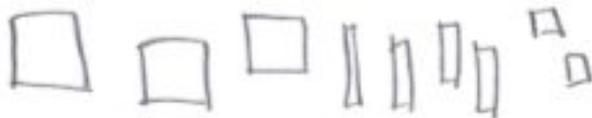
Example: $200 + 40 + 3 = 143$



$400 + 70 + 8 =$



$300 + 40 + 2 =$



Complete the Chart

Standard Form	Word Form	Expanded Notation
345	Three Hundred Forty-Five	$300 + 40 + 5$
1,517	One Thousand, Five Hundred Seventeen	$1,000 + 500 + 10 + 7$
789	Seven hundred eighty nine	$700 + 80 + 9$
283	Two hundred eighty three	$200 + 80 + 3$

You have four digits: 3 8 1 5

Use all four of these digits to write the largest and the smallest number you can.

Largest
8,531

Smallest
1,358

Math Grade 4 Day 2: Adding with Whole Numbers

Part 1: Write & solve the equation that goes with the base-10 addition problems.

$$232 + 154 = 386$$
$$55 + 144 = 199$$

Part 2 Solve these problems using the standard algorithm.

Find the sum: $14,576 + 15,032$ $\begin{array}{r} 14,576 \\ + 15,032 \\ \hline 29,608 \end{array}$	Find the sum: $46,576 + 34,236$ $\begin{array}{r} 46,576 \\ + 34,236 \\ \hline 80,812 \end{array}$
---	---

On Saturday 24,327 went to a Giants game. On Sunday 28,512 people went to the game. How many people went to the game all together?

$$\begin{array}{r} 24,327 \text{ (saturday)} \\ + 28,512 \text{ (sunday)} \\ \hline 52,839 \end{array}$$

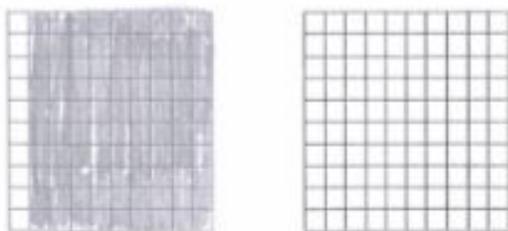
52,839 people went to the game all together

How is adding with base ten blocks similar to adding using the standard algorithm?

Adding with base ten blocks and the standard algorithm is similar because you have to focus on place value.

Math Grade 4 Day 3: Decimals as Parts of the Whole

1. Shade in 0.9, if  = 1



2. Write the sum:

$$\underline{8,341,618} = 8,000,000 + 300,000 + 40,000 + 1,000 + 600 + 10 + 8$$

3. Find the missing number to make this part-part-whole diagram.

$? = 5,299$	$5,001$
$10,300$	

$$10,300 - 5,001 = 5,299$$

$$\boxed{? = 5,299}$$

4. There are 72 packs of gum for sale at the corner store. Each pack has 8 sticks of gum. How many sticks of gum are there for sale at the corner store?

$$\begin{array}{r} 72 \text{ (packs)} \\ \times 8 \text{ (sticks of gum)} \\ \hline \end{array}$$

576 sticks of gum for sale at the corner store

Math Grade 4 Day 4: Mixed Practice

1. Find the sums or differences.

$3,524 + 2,031 =$

1493

$7,586 - 2,031 =$

5,555

2. Write the sum:

53,353.5 = $50,000 + 3,000 + 300 + 50 + 3 + .5$

3. Write the number 75,302 in expanded form and in word form.

expanded form:

$70,000 + 5,000 + 300 + 2$

word form:

Seventy-five thousand, three hundred two

4. There are 4 packs of gum for sale at Big Mel's store. Safeway has 8 times as many packs of gum for sale as Big Mel's Store. How many packs of gum are for sale at Safeway? Show how you solved this problem.

$$\begin{array}{r} 4 \text{ (packs)} \\ \times 8 \text{ (more)} \\ \hline 32 \end{array}$$

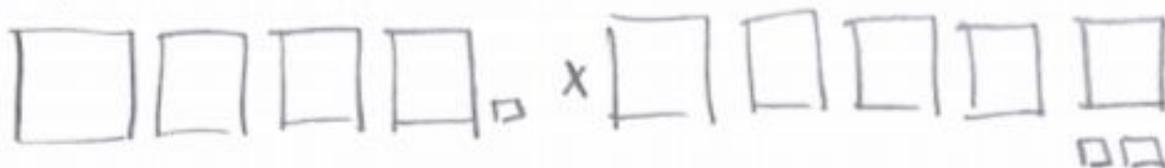
There are 32 packs of gum for sale at Safeway.

5. $7 \times 4 = 28$.

What is $7 \times 40 =$ 280. What is $7 \times 400 =$ 2,800

Math Grade 4 Day 5: Whole Number Multiplication with Word Problems

1. Using base-10 block notation, show 41×52



2. The populations of five cities in California are listed below. What is the combined population of San Francisco and San Jose?

City	Population
Los Angeles	3,928,864
San Diego	1,381,069
San Jose	1,015,785
San Francisco	852,469
Fresno	515,986

$$\begin{array}{r} 1,015,785 \\ + 852,469 \\ \hline 1,868,254 \end{array}$$

The combined population is 1,868,254.

3. Follow the pattern and find the missing numbers.

515,986	515,886	<u>515,786</u>	515,686	<u>515,586</u>	<u>515,486</u>
---------	---------	----------------	---------	----------------	----------------

4. Angela and Elisa are playing a game of basketball. Angela scored 30 points. Elisa scored three times as many points as Angela did.

How many points did Elisa and Angela score all together?

$$\begin{array}{r} 30 \text{ (angela)} \\ \times 3 \\ \hline 90 \text{ (elisa)} \end{array}$$

Show how you figured this out.

$$\begin{array}{r} 30 \\ + 90 \\ \hline \end{array}$$

120 points total

First, I multiplied Angela's points by 3 to find out how many points Elisa scored. Then, I added up both their points for the total.

Math Grade 4 Day 6: Whole Number Division

1. At the school cafeteria, each student who ordered lunch gets 7 chicken nuggets. The cafeteria staff prepares for 500 students.

How many chicken nuggets does the cafeteria prepare altogether?

$$500 \times 7 = \underline{3,500 \text{ chicken nuggets}}$$

2. Jayna has fifty times as many stickers as her cousin. Jayna's cousin has 5 stickers.

How many stickers does Jayna have?

$$\begin{array}{r} 50 \\ \times 5 \\ \hline \end{array} \underline{250 \text{ stickers}}$$

3. Find the sum.

$$75,320 + 2,680 =$$

$$78,000$$

4. Find the product.

$$753 \times 5 =$$

$$3,765$$

5. Find the quotients.

a.) $240 \div 4 = 60$

b.) $240 \div 6 = 40$

c.) $240 \div 2 = 120$

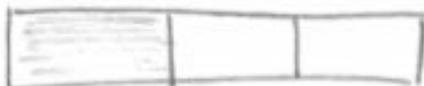
6. Jayna has 36 chicken nuggets and wants to share them with six of her lunchroom friends, how many chicken nuggets will each friend have to eat?

$$36 \div 6 = 6$$

Each friend will get 6 nuggets.

Math Grade 4 Day 7: Fractions, Dividing Wholes into Parts

1. Draw a diagram that represents $\frac{1}{3}$.



2. What are the factors of 10?

1, 2, 5, 10

What are the factors of 25?

1, 5, 25

What are the factors of 125?

1, 5, 25, 125

Which number 10, 25, or 125 has the most factors?

10 and 25

3. A female mountain gorilla weighs 397 pounds. A male mountain gorilla weighs 3 times as much. How much does the male gorilla weigh?

$$\begin{array}{r} 397 \\ \times 3 \\ \hline 1,191 \end{array} \text{ pounds}$$

The male gorilla weighs 1,191 pounds.

4. Find the product or quotient.

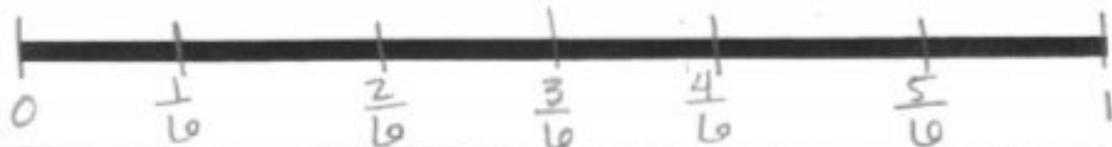
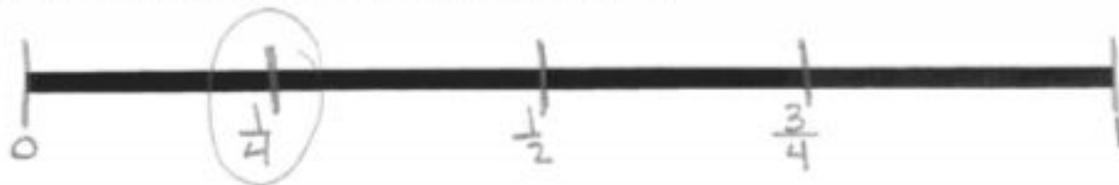
a. $102 \times 29 =$

2,958

b. $5055 \div 5 =$

1,011

5. On the lines provided write fractions equaling $\frac{1}{4}$ and $\frac{3}{6}$.



Math Grade 4 Day 8: Fractions and Equivalency

1. Draw a diagram that represents 2.



2. Draw a diagram that represents 1.



3. Draw a diagram that represents $1\frac{1}{2}$.



4. Draw a diagram that represents $1\frac{3}{4}$.



5. What is the place value of 5 in 5,261?

thousands

6. What is the place value of 5 in 2,156?

tens

7. What is the place value in 5 in 1,516?

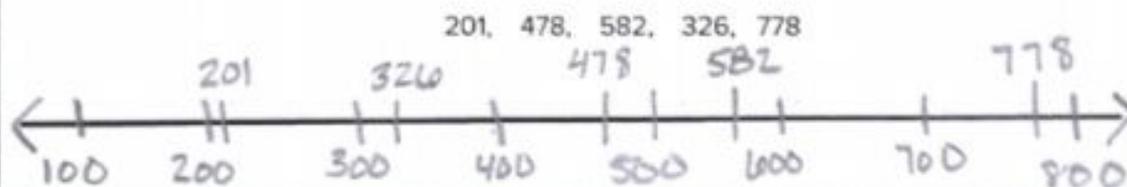
hundreds

8. How is the 2 in the number 582 different from the 2 in the number 528?

this 2 = 2

this 2 = 20

9. Put the following numbers on the number line in order greatest to least.



10. Which symbol makes this sentence true? $>$ $<$ $=$ $+$

239,475 $<$ 240,467

11. In the boxes below circle the fraction that is equal to $\frac{1}{2}$:

<u>$\frac{3}{6}$</u>	$\frac{2}{3}$	$\frac{5}{6}$
---------------------------------	---------------	---------------

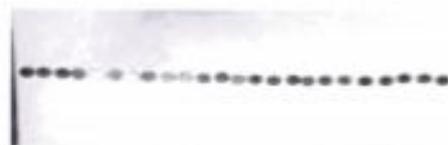
12. In the boxes below circle the fraction that is equivalent to $\frac{2}{3}$:

$\frac{4}{9}$	<u>$\frac{4}{6}$</u>	$\frac{1}{3}$
---------------	---------------------------------	---------------

NOTE: In this case the words "equal" and "equivalent" mean the same thing.

Math Grade 4 Day 9: Factors and Multiples

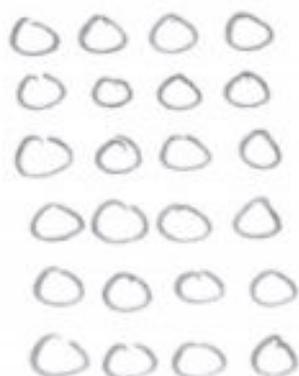
Use 24 pennies (or other objects) and make all the possible arrays. Record the number of rows and columns in the table below.



Number of Rows	Number of Columns	Factors	Product
1	24	1, 24	24
2	12	2, 12	24
3	8	3, 8	24
4	6	4, 6	24
6	4	6, 4	24
8	3	8, 3	24
12	2	12, 2	24
24	1	24, 1	24

List all the factors of 24: 1, 2, 3, 4, 6, 8, 12, 24

Choose 1 of the arrays you created with pennies and draw it below.



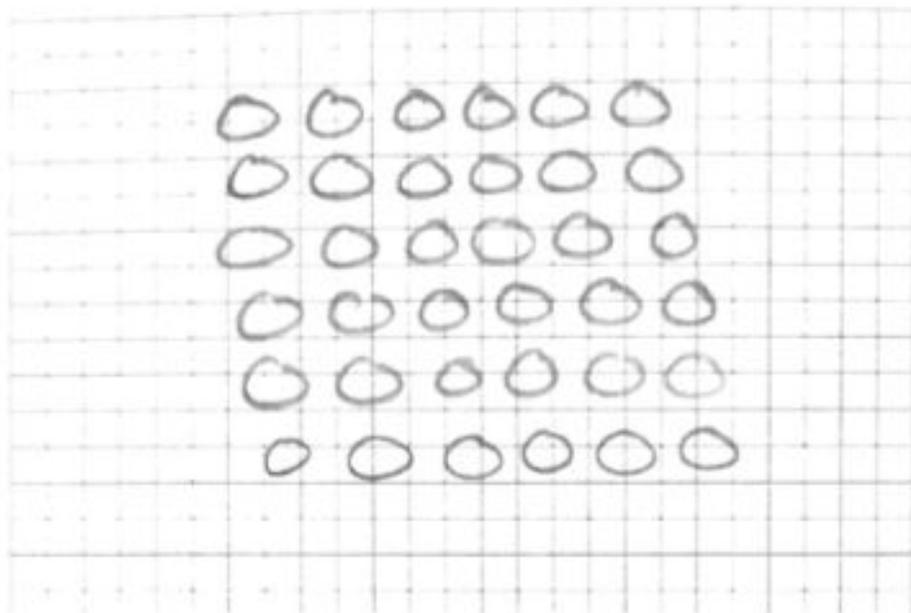


Use 36 pennies or other small objects and make all the possible arrays.

Number of Rows	Number of Columns	Factors	Product
1	36	1, 36	36
2	18	2, 18	36
3	12	3, 12	36
4	9	4, 9	36
6	6	6	36
9	4	9, 4	36
12	3	12, 3	36
18	2	18, 2	36
36	1	36, 1	36

List the factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36

Choose 1 of the arrays you created with pennies and draw it below.



The multiples of a number are the numbers you get when you multiply by that number. For example:

The multiples of 2 are:

2, 4, 6, 8, 10, 12, 14, 16, 18, 20

List the multiples of 3:

3, 6, 9, 12, 15, 18, 21

List the multiples of 4:

4, 8, 12, 16, 20, 24, 28

List the multiples of 5:

5, 10, 15, 20, 25, 30, 35

List the multiples of 6:

6, 12, 18, 24, 30, 36, 42

List the multiples of 8:

8, 16, 24, 32, 40, 48, 56

Math Grade 4 Day 10: Multiple

List the first 10 multiples of the number 2 (put them in the boxes provided; the first multiple has been done for you).

2	4	6	8	10	12	14	16	18	20
---	---	---	---	----	----	----	----	----	----

List the first 15 multiples of the number 3 (put them in the boxes provided; the first three multiples have been done for you).

3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
---	---	---	----	----	----	----	----	----	----	----	----	----	----	----

List the first 10 multiples of the number 4 (put them in the boxes provided; the first two multiples have been done for you).

4	8	12	16	20	24	28	32	36	40
---	---	----	----	----	----	----	----	----	----

Which factors do the numbers 2, 3, and 4 have in common, and how do you know?

The number 12, because the number 12 is in each row of multiples

Karla enjoys reading and wants to share the gift of enjoying reading with a few of her friends. Karla has saved \$25 and will spend \$8.50 per Harry Potter book; she will buy three books, one for each of her friends.

Each book costs \$8.50. Karla has \$25 to spend on books. Does Karla have enough money to buy three books? How do you know?

$$\begin{array}{r} \$8.50 \\ \times \quad 3 \\ \hline \$25.50 \end{array}$$

No, Karla needs 50¢ more to buy three books

Here is an example of the factors for 8

1, 2, 4, 8

Reasoning: $1 \times 8 = 8$, and $2 \times 4 = 8$. So the factors of 8 are: 1, 2, 4, 8

What are the factors of 10?

1, 2, 5, 10

What are the factors of 5?

1, 5

What are the factors of 25?

1, 5, 25

What are the factors of 50?

1, 2, 5, 10, 25, 50

What are the factors of 27?

1, 3, 9, 27

Which number 5, 10, 25, 50 or 75 has the most factors? Explain your thinking (Below):

The number 50, because it has six factors.

4. Find the answers.

$12,345 + 456,045 =$

468,390

$210 \times 21 =$

4,410

$560,450 - 34,872 =$

525,578

$20 \times 210 =$

4,200