

MATH LESSONS FOR A LIVING EDUCATION

level 3



Angela O'Dell
& Kyrsten Carlson

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Dedicated to Grace, Ellie, Sully, and Zeb

And to Erin and Kevin, who have the strength to show the love of Jesus,
which conquers ALL fear and heals all wounds. You are precious in His sight.



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Using This Course

Features: The suggested weekly schedule enclosed has easy-to-manage lessons that guide the reading, worksheets, and all assessments. The pages of this course are perforated and three-hole punched so materials are easy to tear out, hand out, grade, and store. Teachers are encouraged to adjust the schedule and materials needed in order to best work within their unique educational program.

Lesson Scheduling: Students are instructed to read the pages in their book and then complete the corresponding section provided by the teacher. Assessments that may include worksheets and activities are given at regular intervals with space to record each grade. Space is provided on the weekly schedule for assignment dates, and flexibility in scheduling is encouraged. Teachers may adapt the scheduled days per each unique student situation. As the student completes each assignment, this can be marked with an “X” in the box.



Approximately 30 minutes per lesson, five days a week, for 36 weeks



Answer keys for worksheets and assessments



Review sections can be used as quizzes



Worksheets are included for each section



Designed for grade 3 in a one-year course

Course Description

Welcome to the third book in the **Math Lessons for a Living Education** series! You will find that *Math Lessons for a Living Education* is a unique approach to learning math. A blend of stories, copywork, oral narration, and hands-on experience brings the concepts to life and invites the child to explore the world around them. The tone of this math book is meant to speak personally to each child, and the methods easily adapted to any teaching style.

The first 30 lessons have a story about the twins, teaching through hands-on learning. Sometimes, these lessons are learned by the twins’ explorations in nature. After the story, there are exercises for students to practice the lesson they learned and to review what they have learned earlier. The last 6 lessons are focused reviews, covering topics learned throughout the first 30 lessons.

Course Objectives: Students completing this course will

- ✓ Review addition and subtraction, and basic numbers up to 100
- ✓ Explore new concepts like, word problems, skip counting, money, and time
- ✓ Learn how to read bar graphs and line graphs, as well as understand basic measurement
- ✓ Identify place values, regrouping concepts, and measurement with a thermometer
- ✓ Narrate the story to their teacher to show their comprehension, which to “narrate” is simply to tell the story in one’s own words.

Teaching mathematics as a living subject

This book is the continuing story of Charlie and Charlotte, who are learning that life is full of learning opportunities! As you read their story, students will be drawn into the adventure along with the twins. They will learn about numbers, shapes, place value, adding, and subtracting. They will also learn about geography, and the love of family. They will be invited to join the twins on their living math adventures. I hope you have a grand time on this adventure. Have a wonderful time exploring and learning!

As a teacher and a mother, I have discovered that true education is based on relationships: the relationship the child makes with the amazing concepts in the world around them; the relationship the teacher and the child make with each other; and most importantly and ultimately, the relationship the child makes with their Creator. It is built on discovering the God of the Universe — the One

who holds the universe in His hands but at the same time, lovingly indwells the heart of a little child.

The story in Book 3 is meant to reach into a child’s world, grab their attentions and invite them into the learning process. The concepts are not taught through drill only, but also through encouraging the student to hone their critical thinking skills and think outside of the box. This curriculum teaches the student math, but it is not result-oriented, focusing only on grades; instead it is skill and process-oriented. I have discovered that it is in the everyday that we grow and become who we are meant to be. It is in the little discoveries all along the path of life that we grow, learn, develop, and discover who God is and, in turn, see ourselves the way He sees us. Math concepts are learned well, as it is learned in the context of living, in the midst of discovery, and through Godly, worldview glasses that focus on the bigger picture.

First Semester Suggested Daily Schedule

Date	Day	Assignment	Due Date	✓	Grade
First Semester-First Quarter					
Week 1	Day 1	Read Lesson 1 • Pages 15-16 Complete Lesson 1 Exercise 1 • Page 17			
	Day 2	Complete Lesson 1 Exercise 2 • Page 18			
	Day 3	Complete Lesson 1 Exercise 3 • Page 19			
	Day 4	Complete Lesson 1 Exercise 4 • Page 20			
	Day 5	Complete Lesson 1 Exercise 5 • Pages 21-22			
Week 2	Day 6	Read Lesson 2 • Pages 23-24 Complete Lesson 2 Exercise 1 • Page 25			
	Day 7	Complete Lesson 2 Exercise 2 • Page 26			
	Day 8	Complete Lesson 2 Exercise 3 • Page 27			
	Day 9	Complete Lesson 2 Exercise 4 • Page 28			
	Day 10	Complete Lesson 2 Exercise 5 • Pages 29-30			
Week 3	Day 11	Read Lesson 3 • Pages 31-32 Complete Lesson 3 Exercise 1 • Page 33			
	Day 12	Complete Lesson 3 Exercise 2 • Pages 34-35			
	Day 13	Complete Lesson 3 Exercise 3 • Page 36			
	Day 14	Complete Lesson 3 Exercise 4 • Page 37			
	Day 15	Complete Lesson 3 Exercise 5 • Page 38			
Week 4	Day 16	Read Lesson 4 • Page 39 Complete Lesson 4 Exercise 1 • Page 40			
	Day 17	Complete Lesson 4 Exercise 2 • Page 41			
	Day 18	Complete Lesson 4 Exercise 3 • Page 42			
	Day 19	Complete Lesson 4 Exercise 4 • Page 43			
	Day 20	Complete Lesson 4 Exercise 5 • Page 44			
Week 5	Day 21	Read Lesson 5 • Pages 45-46 Complete Lesson 5 Exercise 1 • Pages 47-48			
	Day 22	Complete Lesson 5 Exercise 2 • Page 49			
	Day 23	Complete Lesson 5 Exercise 3 • Page 50			
	Day 24	Complete Lesson 5 Exercise 4 • Pages 51-52			
	Day 25	Complete Lesson 5 Exercise 5 • Pages 53-54			
Week 6	Day 26	Read Lesson 6 • Pages 55-56 Complete Lesson 6 Exercise 1 • Pages 57-58			
	Day 27	Complete Lesson 6 Exercise 2 • Page 59			
	Day 28	Complete Lesson 6 Exercise 3 • Page 60			
	Day 29	Complete Lesson 6 Exercise 4 • Page 61			
	Day 30	Complete Lesson 6 Exercise 5 • Page 62			

Date	Day	Assignment	Due Date	✓	Grade
Week 7	Day 31	Read Lesson 7 • Pages 63-64 Complete Lesson 7 Exercise 1 • Pages 65-66			
	Day 32	Complete Lesson 7 Exercise 2 • Pages 67-68			
	Day 33	Complete Lesson 7 Exercise 3 • Pages 69-70			
	Day 34	Complete Lesson 7 Exercise 4 • Pages 71-72			
	Day 35	Complete Lesson 7 Exercise 5 • Pages 73-74			
Week 8	Day 36	Read Lesson 8 • Pages 75-76 Complete Lesson 8 Exercise 1 • Page 77			
	Day 37	Complete Lesson 8 Exercise 2 • Pages 78-79			
	Day 38	Complete Lesson 8 Exercise 3 • Page 80			
	Day 39	Complete Lesson 8 Exercise 4 • Pages 81-82			
	Day 40	Complete Lesson 8 Exercise 5 • Pages 83-84			
Week 9	Day 41	Read Lesson 9 • Pages 85-86 Complete Lesson 9 Exercise 1 • Page 87			
	Day 42	Complete Lesson 9 Exercise 2 • Page 88			
	Day 43	Complete Lesson 9 Exercise 3 • Pages 89-90			
	Day 44	Complete Lesson 9 Exercise 4 • Pages 91-92			
	Day 45	Complete Lesson 9 Exercise 5 • Pages 93-94			
First Semester-Second Quarter					
Week 1	Day 46	Read Lesson 10 • Pages 95-96 Complete Lesson 10 Exercise 1 • Page 97			
	Day 47	Complete Lesson 10 Exercise 2 • Pages 98-99			
	Day 48	Complete Lesson 10 Exercise 3 • Page 100			
	Day 49	Complete Lesson 10 Exercise 4 • Page 101			
	Day 50	Complete Lesson 10 Exercise 5 • Page 102			
Week 2	Day 51	Read Lesson 11 • Page 103 Complete Lesson 11 Exercise 1 • Page 104			
	Day 52	Complete Lesson 11 Exercise 2 • Page 105			
	Day 53	Complete Lesson 11 Exercise 3 • Page 106			
	Day 54	Complete Lesson 11 Exercise 4 • Page 107			
	Day 55	Complete Lesson 11 Exercise 5 • Page 108			
Week 3	Day 56	Read Lesson 12 • Pages 109-110 Complete Lesson 12 Exercise 1 • Pages 111-112			
	Day 57	Complete Lesson 12 Exercise 2 • Page 113			
	Day 58	Complete Lesson 12 Exercise 3 • Pages 114-115			
	Day 59	Complete Lesson 12 Exercise 4 • Pages 116-117			
	Day 60	Complete Lesson 12 Exercise 5 • Page 118			

Date	Day	Assignment	Due Date	✓	Grade
Week 4	Day 61	Read Lesson 13 • Pages 119-120 Complete Lesson 13 Exercise 1 • Pages 121-122			
	Day 62	Complete Lesson 13 Exercise 2 • Pages 123-124			
	Day 63	Complete Lesson 13 Exercise 3 • Pages 125-126			
	Day 64	Complete Lesson 13 Exercise 4 • Page 127			
	Day 65	Complete Lesson 13 Exercise 5 • Page 128			
Week 5	Day 66	Read Lesson 14 • Page 129 Complete Lesson 14 Exercise 1 • Page 130			
	Day 67	Complete Lesson 14 Exercise 2 • Pages 131-132			
	Day 68	Complete Lesson 14 Exercise 3 • Pages 133-134			
	Day 69	Complete Lesson 14 Exercise 4 • Pages 135-136			
	Day 70	Complete Lesson 14 Exercise 5 • Pages 137-138			
Week 6	Day 71	Read Lesson 15 • Page 139 Complete Lesson 15 Exercise 1 • Pages 140-141			
	Day 72	Complete Lesson 15 Exercise 2 • Pages 142-143			
	Day 73	Complete Lesson 15 Exercise 3 • Pages 144-145			
	Day 74	Complete Lesson 15 Exercise 4 • Pages 146-147			
	Day 75	Complete Lesson 15 Exercise 5 • Page 148			
Week 7	Day 76	Read Lesson 16 • Pages 149-150 Complete Lesson 16 Exercise 1 • Page 151			
	Day 77	Complete Lesson 16 Exercise 2 • Pages 152-153			
	Day 78	Complete Lesson 16 Exercise 3 • Page 154			
	Day 79	Complete Lesson 16 Exercise 4 • Pages 155-156			
	Day 80	Complete Lesson 16 Exercise 5 • Pages 157-158			
Week 8	Day 81	Read Lesson 17 • Pages 159-160 Complete Lesson 17 Exercise 1 • Pages 161-162			
	Day 82	Complete Lesson 17 Exercise 2 • Pages 163-164			
	Day 83	Complete Lesson 17 Exercise 3 • Pages 165-166			
	Day 84	Complete Lesson 17 Exercise 4 • Pages 167-168			
	Day 85	Complete Lesson 17 Exercise 5 • Pages 169-170			
Week 9	Day 86	Read Lesson 18 • Pages 171-172 Complete Lesson 18 Exercise 1 • Page 173			
	Day 87	Complete Lesson 18 Exercise 2 • Pages 174-175			
	Day 88	Complete Lesson 18 Exercise 3 • Pages 176-177			
	Day 89	Complete Lesson 18 Exercise 4 • Pages 178-179			
	Day 90	Complete Lesson 18 Exercise 5 • Page 180			
		Mid-Term Grade			

Review of Place Value, Odds and Evens, Counting by 2s, 5s, 10s

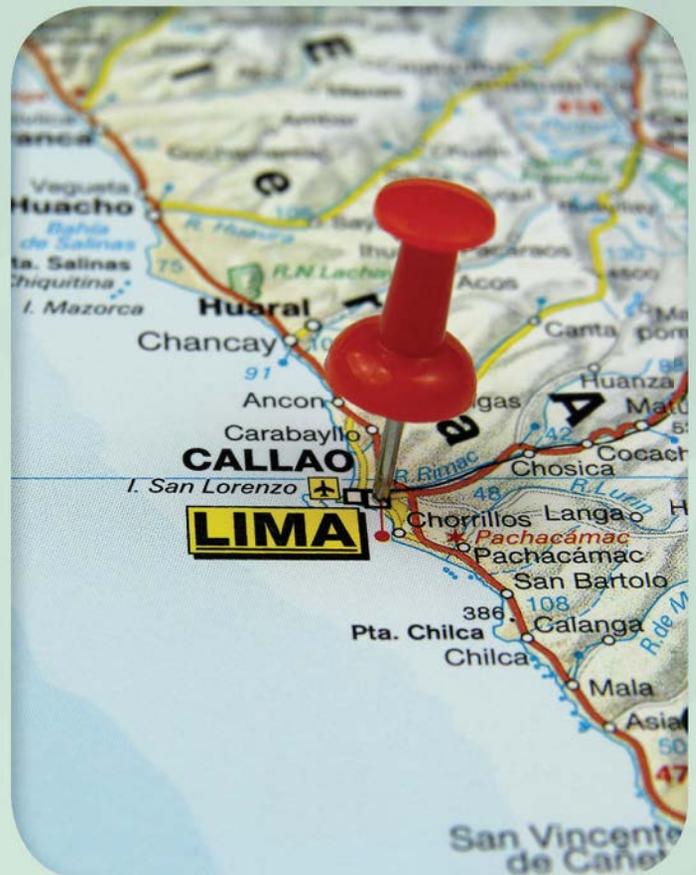
Lesson 1

The sweet-smelling, spring breeze fluttered the light blue curtains in the window of the schoolroom. The sound of birds chirping drifted in from outside, along with Dad's cheerful whistling under the window, as he uncovered the central air conditioning unit. Charlie sighed and tugged on his coonskin cap, which seemed to be a permanent fixture on his head. He did not have the slightest clue how he was ever going to finish his schoolwork today! He sent a sideways glance toward Charlotte. She was chewing the end of her pencil and staring at the ceiling, seemingly deep in thought. Charlie sighed again. It was the last week of school before summer break. Mom had told them at breakfast that morning that she only had a few assignments left for them to finish up before they left on their trip.

Their trip! Charlie wiggled with excitement. The very next week they were going to fly on an airplane, with Mom, Dad, and their baby sister, Ella, all the way to Lima, Peru! "Excited" did not even begin to describe how Charlie felt. Mom and Dad had told them that they were all going down to meet Natalia and Hairo! Dad was going to spend the summer — which is winter in Peru — helping to build a clinic close to the children's home. He was also going to finish the last wing of the home. Mom and the children were going along to help with some large sewing projects for the children, the clinic, and the mission society that helped bring comfort to the poor in Lima.

"Charlie, Mom says that we can be done for the day if we just finish the copywork of our poem, complete our math worksheet, and do our silent reading. Are you finished yet?" Charlotte's voice brought Charlie back to the classroom. He sighed again and tugged his hat's tail.

"No, I still need to finish this math work. Are you done yet, Charlotte?" he asked his twin sister.





“Almost. I only have to finish my copywork. Let’s work quickly, Charlie. Mom says that we can help get ready for our trip if we get done in time!” Charlotte’s eyes glowed at the thought of meeting Natalia. She had been writing letters all winter to her little friend who lived in the children’s home, and she had started calling her “Natty.” Natty had liked the idea of Charlotte’s name for her, and the girls had made many plans for Charlotte’s visit.

“Ok, Charlotte, I’ll hurry, so we can help,” Charlie settled into his seat with a determined look on his face. Mom had been working on the habit of attention with the children this year. Charlie repeated their school motto to himself whenever he was tempted to shirk his responsibility, “I am, I can, I ought, I will!” Picking up his pencil, he set to work on his math sheet. Mom really had given the children a lighter schoolwork load this week; she knew they were excited about their trip. Charlie was determined not to let her down. The children were working on some end-of-the-year review in math. Mom had given them worksheets covering place value, odd and even numbers, and skip counting by 2s, 5s, and 10s.

Name _____

Copywork of numbers

100, 101, 102, 103, 104, 105, 106,

107, 108, 109, 110, 111, 112, 113, 114,

115, 116, 117, 118, 119, 120, 121, 122,

123, 124, 125, 126, 127, 128, 129,

130, 131, 132, 133, 134, 135, 136,

137, 138, 139, 140, 141, 142, 143,

144, 145, 146, 147, 148, 149, 150

Prepare Hundreds Counters. With your teacher, use your Place Value Village to show and understand the numbers 100–150

Name _____

Exercise 3

Day
3

Copywork of numbers

151, 152, 153, 154, 155, 156, 157,

158, 159, 160, 161, 162, 163, 164, 165,

167, 168, 169, 170, 171, 172, 173,

174, 175, 176, 177, 178, 179, 180,

181, 182, 183, 184, 185, 186, 187,

188, 189, 190, 191, 192, 193,

194, 195, 196, 197, 198, 199, 200

Prepare Hundreds Counters. With your teacher, use your Place Value Village to show and understand the numbers 151–200

Name _____

Check even or odd.

239 even odd

345 even odd

12,789 even odd

12 even odd

188 even odd

2,678 even odd

3,921 even odd

9,234 even odd

Narrate to your teacher what makes an even number and what makes an odd number.

Odds and Evens

With a red pencil or crayon, circle all of the even numbers in the numbers you copied in Exercises 2 and 3. What does each number end in?



With a blue pencil or crayon, circle all of the odd numbers in the numbers you copied in Exercises 2 and 3. What does each number end in?



Name _____

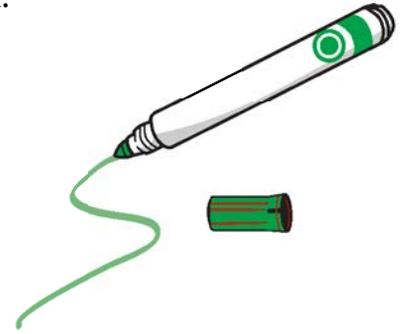
Exercise 5

Day
5

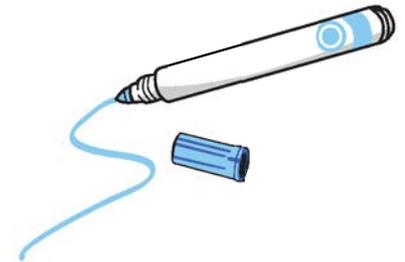
Remove My 100's Chart from pages 345–346 and laminate for today's lesson.

Practice counting by 2s, 5s, and 10s. Wipe your chart clean between each.

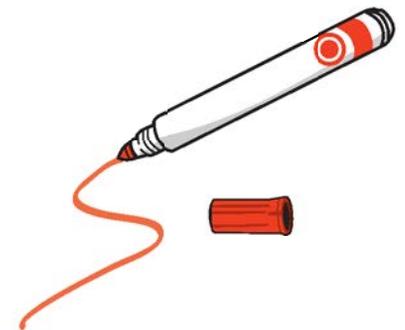
On your laminated 100s chart, use a green washable marker to color all the numbers you say as you count by 2s. Look at the last digit and write the pattern.



Now use a blue marker to color in all of the numbers you say as you count by 5s. Look at the last digit and write the pattern.



With a red marker, color all the numbers you say as you count by 10s. What number does each one end in?



Narrate to your teacher the patterns you see in each sequence.

Teacher

This is extremely important. Skip counting is “pre-multiplication.” We will be learning multiplication a little later in this book, and a firm grasp of skip counting will help tremendously.

Name _____

Extra practice:

Use different colored markers to color in the numbers as you count by 3s, 4s, 6s, 7s, 8s, and 9s. Wipe your chart clean between each one. Discuss the patterns you see in the sequences.

Project! This is not optional!

Make a poster (to hang where student can see) of the skip counting sequences (1s - 10s). Make it colorful and fun — and use it to review often. The better the student learns their skip counting, the faster they will learn their multiplication facts! Start now! Work on this project over the next two weeks.

Introducing Multiplication of 0, 1, 2, and 5

Lesson 12

The day had finally arrived to help move the children into their new dorm room! Dad had announced at supper the night before that the fourth and final dorm hall was completely finished. A great cheer filled the dining room as the children and their caregivers gave Dad and the other workers a standing ovation. Charlie beamed; he was so proud of his dad! He wanted to be just like him when he grew up.

The twins joined the other children for their usual Bible hour and school time. Everyone was having a hard time keeping their minds on their work. Hairo and Natty were two of the children who would be moving into the new dorm rooms. Thankfully, the morning seemed to go quickly, and soon the children were filing into the dining room for their noon meal.

“Charlotte, do you think you could help me make my new bed?” Natty asked as they took their seats side-by-side with their lunch trays.

“Sure, Natty!” Charlotte smiled at the smaller girl. She knew Natty was a bit nervous about her new bed. It was the top bunk, and to the little girl, it seemed very tall. “I’ll help you, and Charlie can help Hairo, ok? We will have all of your clothes put away and everything taken care of by supper. You’ll see!” Charlotte reassured her little friend. Mom had told her this morning that Natty might be nervous about moving to the new room. Natty’s life had been hard, and she had a difficult time with change. Charlotte hoped that she would be able to help Natty adjust to the new room and bed. She gave Natty’s shoulder a squeeze and was rewarded with a smile.

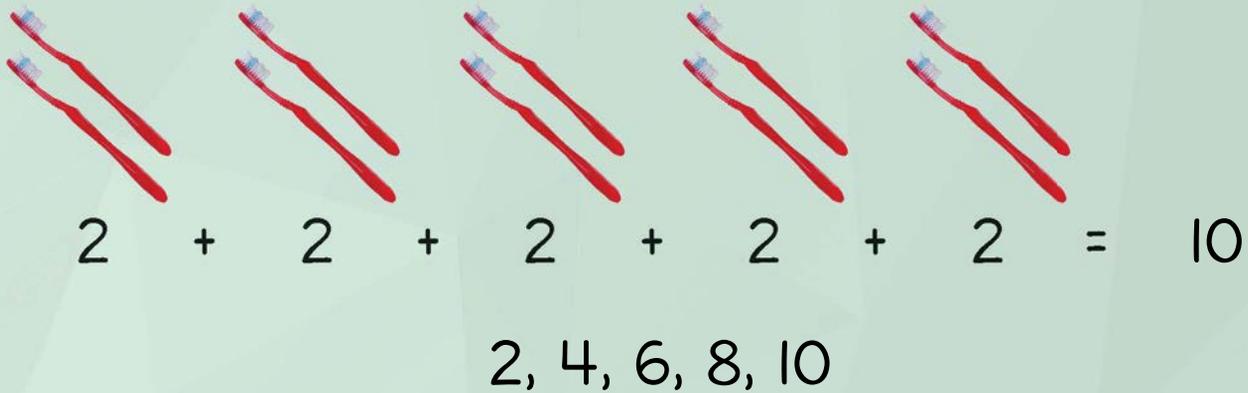
After lunch, Mom stood up and rang the bell to get everyone’s attention.

“We are moving 40 children into the new dorm hall this afternoon. We need volunteers to help with distributing bedding, towels, toiletries, and pillows. If you are able to help, please meet in the caregiver’s apartment in the new dorm hall after lunch. Thank you all!”

As the volunteers gathered, Mom showed them the huge stacks of bedding, towels, and pillows. The twins wanted to help count the new toothbrushes, but the noise made it difficult to keep on track. Mom saw their predicament and came to their rescue.



“Here, children, this will help,” she said as she showed them how to separate the toiletries into groups of 2. “This is a faster way to add. See? If you count by twos, it’s the same as adding the groups of two. Like this: $2 + 2 + 2 + 2 + 2 = 10$, or you can say $5 \times 2 = 10$, which means five groups of 2.”



5 groups of 2 toothbrushes $5 \times 2 = 10$

Charlie’s eyes sparkled! He loved how numbers worked together. He quickly separated the towels into groups of 5. If the girls could use this new concept to count the toothbrushes, then he could use it to count the towels. Four groups of 5 towels each is 20 towels!

$$5 + 5 + 5 + 5 = 20$$

5, 10, 15, 20

5 groups of 4 towels $4 \times 5 = 20$

Let's Practice!

Multiplication is really just repeated addition. The children found that it was easier to use multiplication than to add over and over again.

Study these multiplication facts. Draw pictures to show the facts and write the matching addition fact. The first two are done for you.

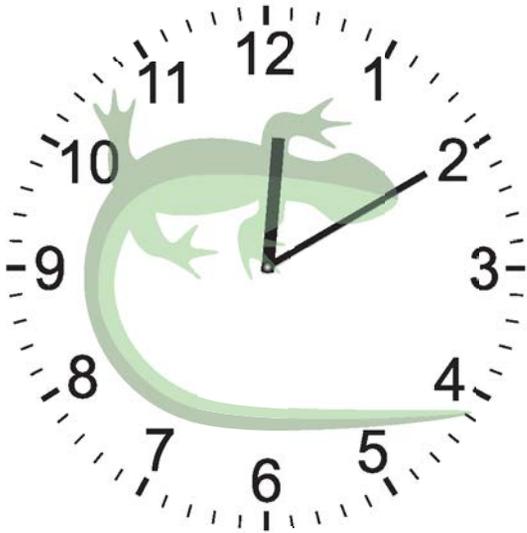
$2 \times 2 = 4$		+		=	4		
$3 \times 2 = 6$		+		+		=	6
$4 \times 2 = 8$							
$5 \times 2 = 10$							
$6 \times 2 = 12$							
$7 \times 2 = 14$							
$8 \times 2 = 16$							
$9 \times 2 = 18$							
$10 \times 2 = 20$							

Name _____

Math Facts for Copywork:

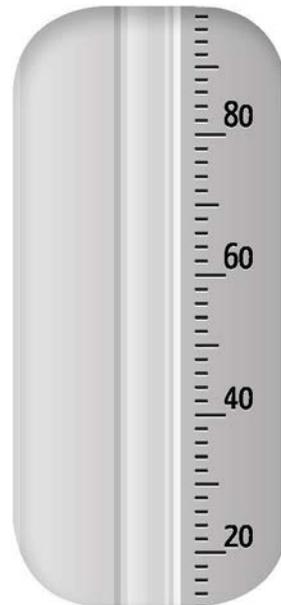
In your copywork notebook, write the 2s multiplication facts from page 347.

Review:



What time is it?

What time will it be in one hour?



Make the thermometer read 64°.

Mental Math: Think and say the answer as your teacher reads these math sentences.

$7 - 3 + 2 - 1 =$

$9 - 2 + 4 - 1 =$

$4 + 5 + 2 - 3 =$

$3 - 2 + 4 =$

$6 + 4 - 7 =$

$5 + 5 - 6 =$

Math Facts for Copywork:

Write the 2s multiplication facts in your copywork notebook.

Important concept! When we multiply two numbers together, we can put those two numbers in any order, and the answer will be the same.

Example:



$1 \times 3 = 3$



$3 \times 1 = 3$

As you can see, 1 group of 3 eggs is the same number as 3 groups of 1 egg.

The numbers that we multiply together are called “factors,” and the answer to a multiplication problem is called the “product.”

For Copywork: copy this sentence.

In a multiplication problem, we can place the factors in any order, and the product will remain the same.

Practice making these groups with beans, blocks, or the manipulative of your choice. Write the answers.

$1 \times 3 = \underline{\quad}$

$1 \times 5 = \underline{\quad}$

$1 \times 10 = \underline{\quad}$

$2 \times 1 = \underline{\quad}$

$4 \times 1 = \underline{\quad}$

$6 \times 1 = \underline{\quad}$

You have probably noticed that when the number 1 is a factor, the product is always the same as the other factor. This is a rule that you need to remember.

Name _____

Let's Practice!

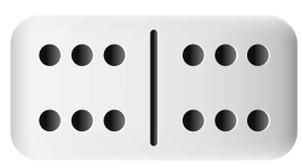
In our last exercise, we learned that when 1 is a factor, the product (answer) is always the same as the other factor. In today's exercise, we are going to talk about what happens when 2 is one of the factors. Turn back to Exercise 1 of this Lesson, and study the multiplication equations that you illustrated. What patterns do you see?

Yes! When we multiply with 2 as one of the factors, we simply double the other factor! Fill in the missing addition facts below. The first one is done for you.



$$\underline{1} + \underline{1} = \underline{2}$$

$$2 \times 1 = 2$$



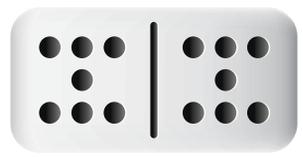
$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 6 = 12$$



$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 2 = 4$$



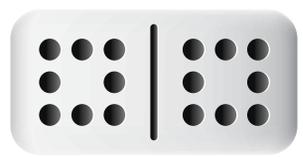
$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 7 = 14$$



$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 3 = 6$$



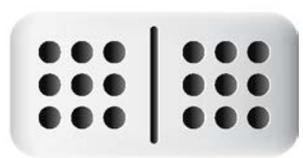
$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 8 = 16$$



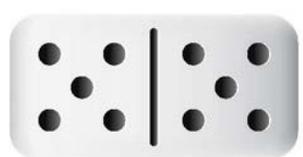
$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 4 = 8$$



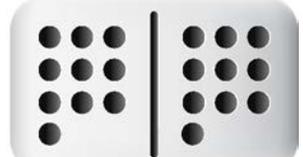
$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 9 = 18$$



$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 5 = 10$$



$$\underline{\quad} + \underline{\quad} =$$

$$2 \times 10 = 20$$

Name _____

Exercise 3

Day
58

For Copywork, write the following sentence:

When we multiply with 2 as one of the factors, we double the other factor.

Review!

$$\begin{array}{r} 326 \\ + 596 \\ \hline \end{array}$$

$$\begin{array}{r} 891 \\ 632 \\ + 159 \\ \hline \end{array}$$

$$\begin{array}{r} 752 \\ - 161 \\ \hline \end{array}$$

$$\begin{array}{r} 201 \\ - 167 \\ \hline \end{array}$$

Round these numbers to the nearest ten. Circle the correct ten.

34

30 or 40

45

40 or 50

81

80 or 90

57

50 or 60

Name _____

Math Facts Review

We have learned several multiplication concepts so far this week. Let's review them before we learn a little more! With manipulatives, show your teacher each one of the following concepts. Practice these concepts until you are comfortable with them.

1. Multiplication is like repeated addition. (Shown in Exercise 1)
2. In a multiplication problem, we can place the factors in any order and the product will remain the same. (Shown in Exercise 2)
3. When we multiply with 2 as one of the factors, we double the other factor. (Shown in Exercise 3)

Now let's add a new concept! Copy this new concept on the lines below it.

When zero is a factor in a multiplication equation, the product is ALWAYS zero.

We know that the first product in a multiplication equation stands for how many groups, and the second product stands for how many in each group. If zero is either one of the products, the answer is always zero.

Study the equations below:

$$2 \times 0 = 0$$

Two groups of zero is zero !

$$0 \times 9 = 0$$

Zero groups of nine is zero !

$$0 \times 7 = 0$$

Zero groups of seven is zero !

$$4 \times 0 = 0$$

Four groups of zero is zero !

Now you try it! Show your teacher this new concept.

Project: Make whole fact flash cards for the first half of the 2s multiplication facts.

Name _____

Exercise 4

Day
59

Review!

Circle the factors in the multiplication equations.

$$4 \times 2 = 8$$

$$2 \times 3 = 6$$

$$2 \times 0 = 0$$

$$10 \times 2 = 20$$

When we have two multiplication equations that are the same, other than the order of the factors, we call them “twins.” Match the twins. Draw a line to show the matching facts.

$$2 \times 3 = 6$$

$$2 \times 4 = 8$$

$$4 \times 2 = 8$$

$$5 \times 2 = 10$$

$$2 \times 5 = 10$$

$$2 \times 0 = 0$$

$$0 \times 2 = 0$$

$$2 \times 6 = 12$$

$$6 \times 2 = 12$$

$$3 \times 2 = 6$$

Project: Make whole fact flash cards for the second half of the 2s multiplication facts.

Name _____

Multiplication by 5s is one of the simplest multiplication concepts.

Count by 5 to fill in these facts.

5	_____	_____	_____	_____	_____	_____	_____	_____	50
(1x5)	(2x5)	(3x5)	(4x5)	(5x5)	(6x5)	(7x5)	(8x5)	(9x5)	(10x5)

When we count nickels, we are multiplying by 5.

5	10	15	20	25	
					$5 \times 5 = 25$

Use your poster that you created in Lesson 1 to review the skip counting sequences. Just like you saw earlier in this exercise, the multiplication facts are the same as skip counting.

Project:

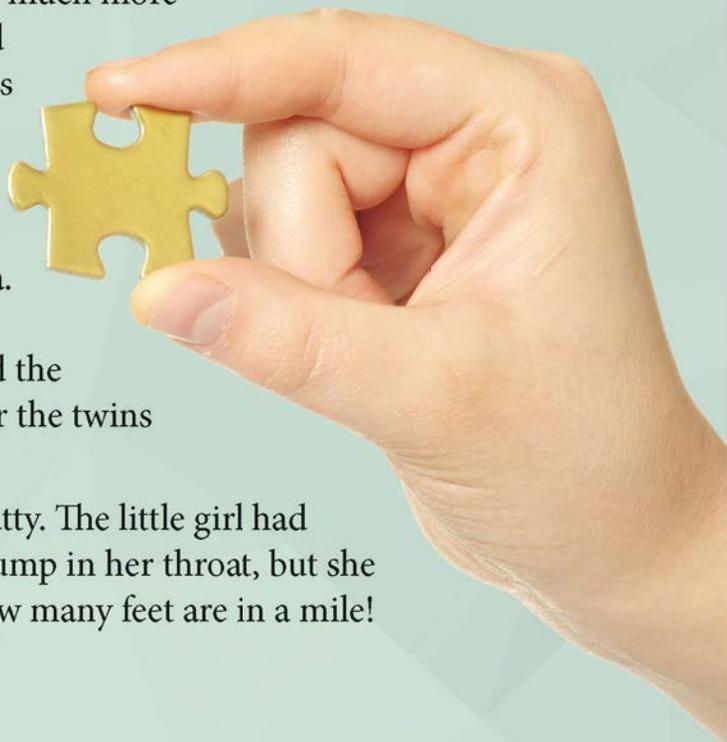
Over the next week, you will making another poster showing the multiplication facts. Start working on it now by showing the x1's and x2's. Leave room on the poster to add the x5's and x10's soon.

Rain pattered softly on the window, nothing like the torrents of the storm the week before. It was a cozy, sleepy afternoon, and Mom was surrounded by children. Natty and Hairo had become permanent fixtures with the family. They had spent the nights during the storm with the twins in order to make room for displaced people who needed beds. Now they had gained permission to spend the rest of the twins' visit with the family.

Charlotte noticed that her little friend had almost stopped her nervous habit of twiddling her hair. To Charlotte, Natty seemed much more secure since their arrival that spring. What would Natty be like when they left? Right now, Natty was snuggled between Mom and Charlotte, while they looked through a picture book together.

Charlie and Hairo were laying on the floor working on a puzzle of North and South America. The puzzle had been a present from the twins to Hairo and Natty last Christmas. As the boys fitted the puzzle pieces together, they chatted about how far the twins home was from Lima, Peru.

Charlotte watched her mother cuddle with Natty. The little girl had become like Charlotte's little sister. There was a lump in her throat, but she smiled and said cheerfully, "Charlie, tell Natty how many feet are in a mile! Natty, Charlie loves to measure everything!"



Name _____

Exercise 1

Day
116

Optional Math Facts for Copywork or use flashcards to review facts as needed.

Let's Practice and Review:

We have learned a lot about measurement, and today we are going to learn some new measurement concepts. For copywork:

$$5,280 \text{ feet} = 1 \text{ mile}$$

$$1,760 \text{ yards} = 1 \text{ mile}$$

$$2,000 \text{ pounds} = 1 \text{ ton}$$

$$\frac{1}{4} \text{ of } 16 = \underline{\quad}$$



$$\frac{1}{3} \text{ of } 21 = \underline{\quad}$$



$$\frac{1}{4} \text{ of } 32 = \underline{\quad}$$



Estimate.

$$582 \text{ rounds to } \underline{\quad}$$

$$+ \underline{374} \text{ rounds to } \underline{\quad}$$

$$\text{the estimated sum: } \underline{\quad}$$

$$68 \text{ rounds to } \underline{\quad}$$

$$+ \underline{53} \text{ rounds to } \underline{\quad}$$

$$\text{the estimated sum: } \underline{\quad}$$

$$291 \text{ rounds to } \underline{\quad}$$

$$+ \underline{636} \text{ rounds to } \underline{\quad}$$

$$\text{the estimated sum: } \underline{\quad}$$

$$83 \text{ rounds to } \underline{\quad}$$

$$+ \underline{86} \text{ rounds to } \underline{\quad}$$

$$\text{the estimated sum: } \underline{\quad}$$

Multiply and divide.

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array} \quad \begin{array}{r} 4 \\ \times 7 \\ \hline \end{array} \quad \begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

$$4 \overline{)20}$$

$$4 \overline{)28}$$

$$3 \overline{)27}$$

Name _____

Exercise 2

Day
117

Mental Math:

$7 + 1 - 3 + 8 = \underline{\quad}$

$5 \times 7 = \underline{\quad}$

$36 \div 9 = \underline{\quad}$

$5 + 5 + 6 - 5 = \underline{\quad}$

Let's Practice and Review:

Fill in the blank.

$1 \text{ mile} = \underline{\quad} \text{ feet}$

$\underline{\quad} \text{ yards} = 1 \text{ mile}$

$1 \text{ ton} = \underline{\quad} \text{ pounds}$

Write the value of the underlined number. The first one is done for you.

1, <u>6</u> 56	<u>6</u> ,951	74,3 <u>8</u> 1	1 <u>5</u> 7,130	<u>6</u> ,432,050
<u>600</u>	_____	_____	_____	_____

Add.

$$\begin{array}{r} 762 \\ 357 \\ + 982 \\ \hline \end{array}$$

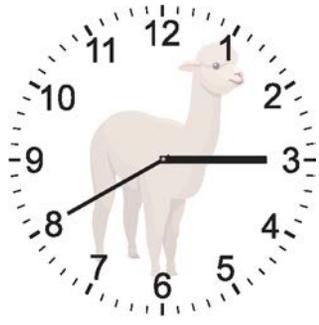
$$\begin{array}{r} 657 \\ + 382 \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 900 \\ - 620 \\ \hline \end{array}$$

$$\begin{array}{r} 402 \\ - 101 \\ \hline \end{array}$$

Name _____



_____ afternoon
 a.m. p.m.
 0 0



Find the perimeter of the mud puddle.
 _____ ft.

Write +, -, x, or ÷ in the blank.

18 ___ 2 = 9

7 ___ 9 = 16

5 ___ 4 = 20

15 ___ 7 = 8

3 ___ 5 = 15

13 ___ 5 = 8

Round to the tens.

27 _____

54 _____

75 _____

Round to the hundreds.

236 _____

589 _____

247 _____

Round to the thousands.

4,567 _____

1,236 _____

3,781 _____

Name _____

Exercise 3

Day
118

Mental Math:

$5 + 2 - 4 + 8 = \underline{\quad}$

$7 \times 7 = \underline{\quad}$

$45 \div 9 = \underline{\quad}$

$4 + 6 + 5 - 5 = \underline{\quad}$

Optional Math Facts for Copywork or use flashcards to review facts as needed.

Write which fact family you did for copy work:

Let's Practice and Review:

Fill in the blank.

$5,280 \text{ feet} = \underline{\quad} \text{ mile}$

$2,000 \text{ pounds} = \underline{\quad} \text{ ton}$

$1 \text{ year} = \underline{\quad} \text{ months}$

$1 \text{ year} = \underline{\quad} \text{ days}$

$1 \text{ hour} = \underline{\quad} \text{ minutes}$

$1 \text{ day} = \underline{\quad} \text{ hours}$

$1 \text{ yard} = \underline{\quad} \text{ feet}$

$1 \text{ foot} = \underline{\quad} \text{ inches}$

Write the value of the underlined number. The first one is done for you.

3,556

7,328

81,271

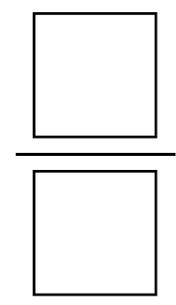
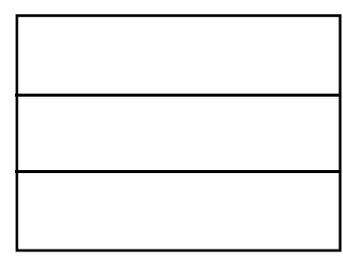
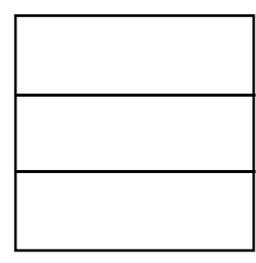
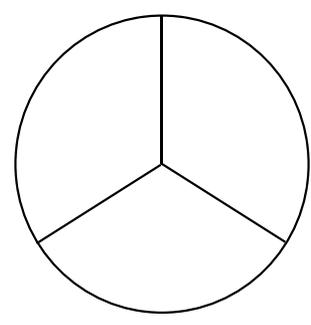
927,620

7,641,681

500

Name _____

Color one third of each shape. Write the fraction.



Mark under the money that is written correctly.

\$.8
○

\$.80
○

\$.05
○

\$.5
○

\$ 1.7
○

\$ 3.07
○

Write tally marks to show the number of lizards.



Practice writing these numbers on your Large Place Value work mat. Read the numbers to your teacher.

94,276

6,215

4,731,841

7,392,900

421,504

5,652,661

Add.

$$\begin{array}{r} 1,000 \\ + 367 \\ \hline \end{array}$$

Subtract.

$$\begin{array}{r} 4,421 \\ - 310 \\ \hline \end{array}$$

Multiply.

$$\begin{array}{r} 1,553,467 \\ \times \quad \quad 0 \\ \hline \end{array}$$

Divide.

$$9 \overline{) 81}$$

Name _____

Exercise 4

Day
119

Mental Math:

$3 + 2 - 4 + 8 = \underline{\quad}$

$8 \times 7 = \underline{\quad}$

$90 \div 9 = \underline{\quad}$

$20 + 5 - 5 = \underline{\quad}$

Let's Practice and Review:

Fill in the blank.

1 mile = _____ yards

1 mile = _____ feet

1 ton = _____ pounds

How many pounds in 2 tons? _____

How many ounces in 2 pounds? _____

How many feet in 6 yards? _____

How many months in 3 years? _____

How many inches in 2 feet? _____

How many minutes in 3 hours? _____

How many hours in 2 days? _____

How many days in 3 years? _____

Name _____

Write the products.

$1 \times 5 =$

$2 \times 5 =$

$3 \times 5 =$

$4 \times 5 =$

$5 \times 5 =$

$6 \times 5 =$

$7 \times 5 =$

$8 \times 5 =$

$9 \times 5 =$

$10 \times 5 =$

Write the sum.

$$\begin{array}{r} 403 \\ + 275 \\ \hline \end{array}$$

Write the difference.

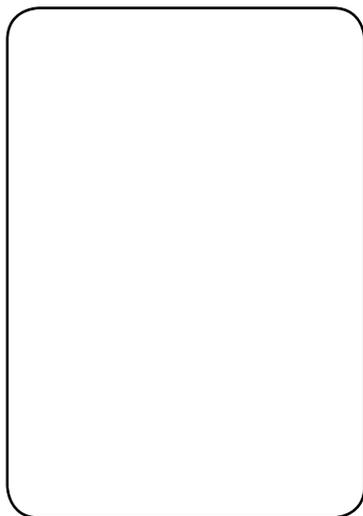
$$\begin{array}{r} 678 \\ - 589 \\ \hline \end{array}$$

Write the answer.

$$3 \overline{)36}$$

The temperature at the children's home was 70 degrees. The temperature at the camp was 58 degrees. How many degrees cooler was the temperature at camp? _____

Draw thermometers showing the two temperatures.



Name _____

Exercise 5

Day
120

This exercise may be used as a quiz.

Mental Math:

$4 + 2 - 3 + 5 = \underline{\quad}$

$2 \times 7 = \underline{\quad}$

$45 \div 9 = \underline{\quad}$

$20 + 5 - 6 = \underline{\quad}$

Multiply

x	1	2	3	4	5	6	7	8	9
1									
2									
3									
4									
5									
6									
7									
8									
9									

Let's Practice and Review:

Fill in the circle by the correct answer for each.

1. $8 \underline{\quad} 5 = 13$

+ - x ÷
 0 0 0 0

2. $\begin{array}{r} 50 \\ 32 \\ + 47 \\ \hline \end{array}$

109
 139
 219
 Not Here

Name _____

3. The smallest fraction.

$\frac{1}{2}$	$\frac{1}{5}$	$\frac{1}{8}$
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. $5 \times 3 = \underline{\quad}$

<input type="radio"/>	23
<input type="radio"/>	15
<input type="radio"/>	8

5.

$$7 \overline{)42}$$

7	8	6	9
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6.

<input type="radio"/>	30
<input type="radio"/>	40
<input type="radio"/>	50

7.

1 ton	
1,000 lbs.	2,000 lbs.
<input type="radio"/>	<input type="radio"/>

8.

1 mile	
5,280 feet	2,580 feet
<input type="radio"/>	<input type="radio"/>

9.

$25 \div 5 =$

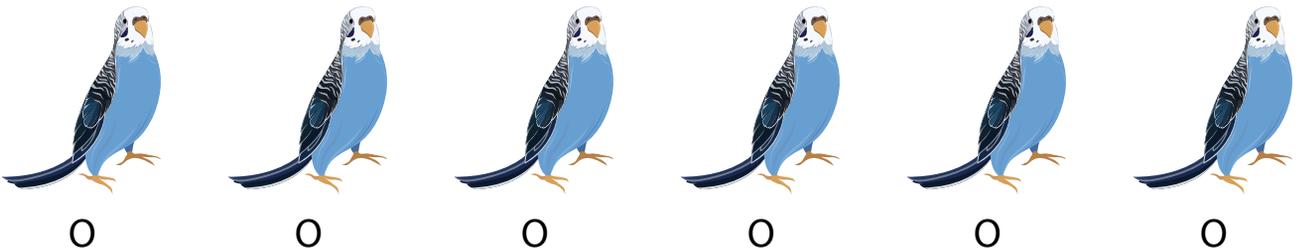
2	5	6
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10.

$4 \times 4 =$

43	8	16
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Mark under the third bird from the right.



Review of All Roman Numerals and Shapes

Lesson 36

Roman numerals are just another way of writing the same numbers you have already learned. They are often seen on clocks or used in books.



Calculating square area and the perimeter of a shape:

- How much room a square “takes up” is called the square area.
- Square area determined by multiplication: side x side = sq. area

Example: a square is 5 inches on the sides. $5 \times 5 = 25$ square inches

Calculating the perimeter of a shape:

- Perimeter is the distance around a polygon. A polygon is just a shape made with straight sides.

“Poly” is a prefix which means “many”; thus, a polygon is a shape with many straight sides. To figure out the perimeter of a rectangle, we just need to add up each side,

If the rectangle has 2 sides that are 6 inches and 2 sides that are 4 inches, you would use:

$$6 + 6 + 4 + 4 = 20 \text{ inches}$$

Name _____

For copywork:

I = one _____

V = five _____

X = ten _____

L = fifty _____

C = hundred _____

D = five hundred _____

M = thousand _____

Adding and subtracting practice.

Add.

$$\begin{array}{r} 5,221 \\ 2,520 \\ + 5,261 \\ \hline \end{array}$$

$$\begin{array}{r} 92 \\ 71 \\ + 21 \\ \hline \end{array}$$

$$\begin{array}{r} 5,210 \\ + 3,129 \\ \hline \end{array}$$

Subtract.

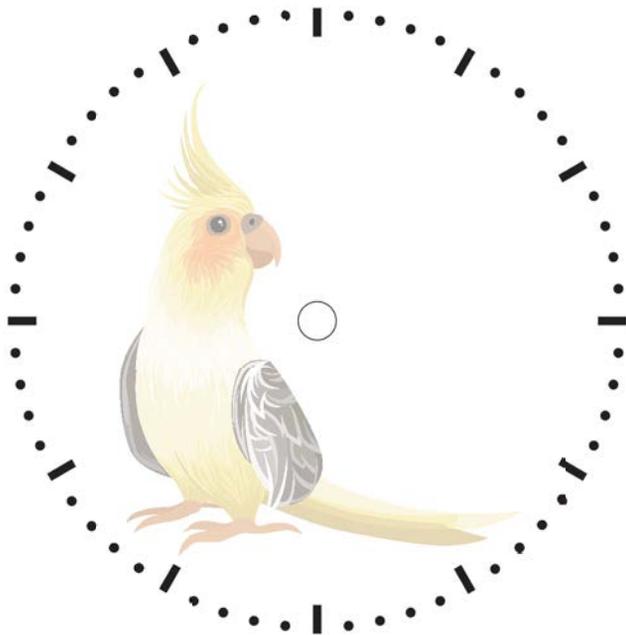
$$\begin{array}{r} 6,187 \\ - 4,023 \\ \hline \end{array}$$

$$\begin{array}{r} 575 \\ - 485 \\ \hline \end{array}$$

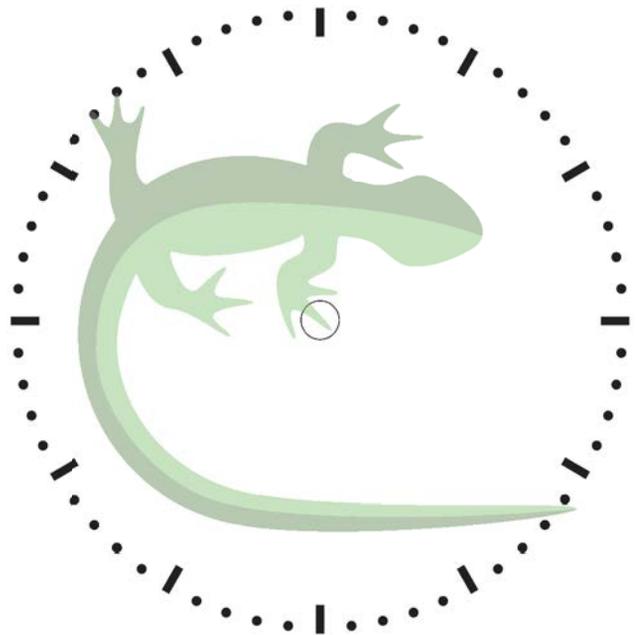
$$\begin{array}{r} 821 \\ - 681 \\ \hline \end{array}$$

Roman Numerals

Fill in the clock with Roman numerals. Draw hands on the clock to show the time written below each one. Narrate to your teacher what you are doing.



12:15



2:25

Fill in the missing Roman numerals.

I, II, _____, IV, _____, VI, _____, _____, IX, _____, XI,
XII, _____, XIV, XV, _____, XVII, _____, XIX, XX

Practice.

$$9 \overline{) 81}$$

$$6 \overline{) 36}$$

$$7 \overline{) 42}$$

$$8 \overline{) 40}$$

$$6 \overline{) 54}$$

Write the matching multiplication facts to the division problems above. The first one is done for you.

$$\underline{9} \times \underline{9} = \underline{81}$$

Name _____

Roman Numerals

Fill in the blank before and after.

_____ XI _____	_____ III _____
_____ XX _____	_____ VII _____
_____ XIII _____	_____ V _____

Write the Roman numerals.

12 _____	20 _____	7 _____
16 _____	13 _____	11 _____
15 _____	14 _____	

Play "memory" by writing the Roman Numerals from I-XX, and the standard numbers 1-20 on separate cards or pieces of paper. Object: find and flip over all matching sets.

Practice

Draw lines.

4½ inches ☆

1 inch ☆

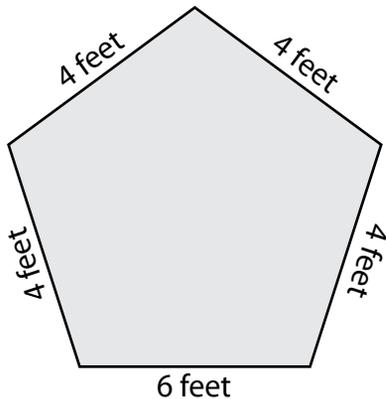
5 inches ☆

Name _____

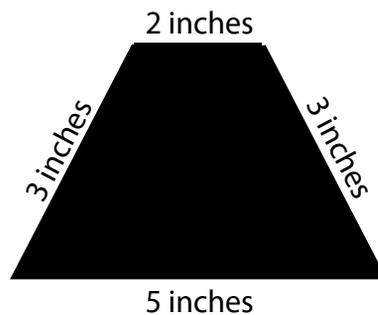
Exercise 4

Day
179

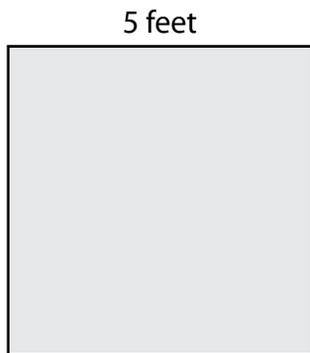
Find the perimeter of the following shapes



_____ + _____ + _____ + _____ + _____ = _____



_____ + _____ + _____ + _____ = _____



_____ + _____ + _____ + _____ = _____



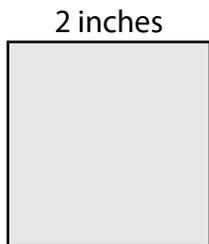
_____ + _____ + _____ + _____ = _____

Hands-on Project

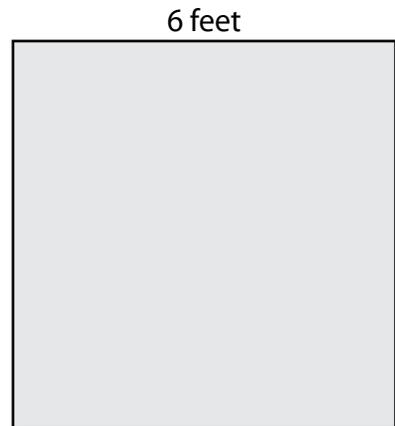
measure	write the measurements	find the perimeter
your desk or table		
your classroom/family room		
object or room of your choice		

Name _____

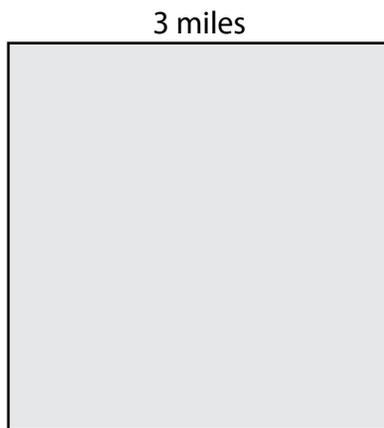
Find the area of these squares. Write the equations next to each square.











Hands-on Project

Find some rectangles, squares, and triangles around you. Use your ruler and measure the shapes. In the space below, write their perimeters. Make sure you write what kind of shape it was.

What I measured.	write the measurements	perimeter