

Introduction to Foundations of Arithmetic (Grades 4-8)

Foundations of Arithmetic 4-8 teaches arithmetic for grades 4th-8th grade in 180 daily lessons per grade.

Here's what makes our curriculum different:

- **Arithmetic teaches children that YHWH is orderly and that His laws govern all of His creation.** Unlike some math curriculum that teach “fuzzy” math, which says there are no absolutes and that it’s more important to encourage self esteem than correct answers, our curriculum emphasizes right and wrong, proper procedures, and orderly, incremental learning.
- **Your children will learn to be precise, exact, neat, and disciplined in their work.** In the book of Proverbs, this is called “diligence,” a character quality upon which YHWH places great importance.
- **Some math curriculum de-emphasize memorization and drill.** However, we believe that Scripture places a premium on memorization. Learning math facts is one way to improve our children’s memory. Our goal is to help your children know their arithmetic facts automatically.
- **Our goal is to continually review math concepts,** rather than teach them in units. Scripture teaches that we learn better when we constantly bring things to our remembrance.
- In Scripture, YHWH chose “the work of skilled craftsman” to build His tabernacle and temple. **We include plenty of real-life “story problems”** so that your children can apply their arithmetic skills to life and learn to become “skilled craftsman” in service of their Creator.

Here are some features of our math curriculum:

- **Together Math Drills** — For 3 days each week, all your children can play math games together, do math drills, and enjoy some fun competition. (Only one child? That’s okay! He or she will enjoy doing the drills with the Teacher!) For the other 2 days, we provide “story problems” from the Bible, such as the size and mass of Noah’s ark, the dimensions of the tabernacle or temple, timelines and dates, the size of people groups, money, weights and measurements, distances between locations, and more. We also study biblical and historical characters who excelled at math, and we learn why YHWH chose to use them for His purposes.
- **Daily Arithmetic Instruction and Review** — We choose arithmetic “themes” each week so that all your children can be learning similar concepts at once, but we provide daily worksheets, tests, and individualized instruction (as well as answer keys for the Teacher).

Scope and Sequence

Once a concept, skill, or fact has been introduced, it will be reviewed for the remainder of the year.

As much as possible, 4th-8th will be related to the concepts being learned in K-3rd.

Throughout the year, calculating automatically and accurately with addition, subtraction, multiplication, and division will be emphasized.

Weeks 1-3 – Whole Numbers

- Addition with carrying
- Subtraction with borrowing
- Multiplication with a 2-digit factor
- Division by a 2-digit divisor
- Place value through billions
- Ratios

Weeks 4-5 -- Measures

- English and metric (linear, capacity, weight)
- Time
- Converting measures within a system
- Measurement equations
- Greater than, less than
- Roman numerals
- Problem solving strategies

Weeks 6-14 – Fractions

- Concepts of fractions
- Remainders as fractions
- Common and uncommon denominators
- Mixed numbers
- Factoring
- Reducing fractions
- Proper and improper fractions
- Cross multiplication
- Multiples
- Subtraction of fractions with borrowing
- Multiplying fractions
- Cancellation
- Divisibility Rules
- Probability
- Estimation in problem solving

Weeks 15-16 – Algebraic Equations

- Axioms for addition, subtraction, multiplication, and division
- Symbols of inequality
- Problem solving with unnecessary facts
- Simplifying algebraic expressions
- Multiplying and dividing monomials

Weeks 18-20 – Decimals

- Decimals and place value
- Comparing decimals
- Addition, subtraction, and multiplication with decimals
- Decimal-fractions equivalents
- Annexing zeros in the product
- Estimation with decimals
- Rounding off whole numbers and decimals
- Problem solving with decimals

Weeks 21-25 – Graphs

- Pictographs, bar graphs, line graphs, graphing ordered pairs, scale drawings, temperature
- Problem solving with missing facts
- Measurement conversions
- Order of operations (algebra)
- Negative numbers
- Making organized lists and reading charts

Weeks 26-27 – Dividing Fractions

- Dividing whole numbers by fractions
- Problem solving with division with fractions
- Dividing fractions by fractions
- Dividing mixed numbers by fractions
- Dividing fractions by whole numbers
- Dividing fractions by mixed numbers
- Comparing numbers by division
- Finding a part of a whole

Weeks 28-31 – Geometry

- Shapes
- Angles and triangles
- Perimeters of rectangles and squares
- Area of a rectangle and square
- Problem solving with geometry
- Concepts of percent
- Squares and square roots
- Problem solving with trial and error
- Geometric constructions
- Surface area and volume

Weeks 32-36 – Decimals and Division

- Dividing a decimal
- Adding zeros to dividends to find exact quotients
- Division with rounding off
- Changing fractions to decimals
- Repeating decimals
- Dividing by a decimal
- Rounding off decimals
- Rounding off mixed numbers
- Multiplying and dividing by powers of 10
- Problem solving with division and decimals

Notes from Anne:

I'm excited to tell you about our arithmetic program! It is divided into two levels, and although we have given them grade levels, please don't feel tied to artificial grades. **The lower level teaches adding and subtracting, and the higher level teaches multiplication and division.**

- In the lower level, K-1 math introduces the numbers, coins, telling time, and simple adding and subtracting. 2-3 math reinforces adding and subtracting skills, so that it becomes EASY for your child, and it also introduces the concept of simple multiplication.
- In the higher level, 4-8 math teaches multiplication and division, and it applies everything learned to fractions, decimals, percentages, ratios, and real-life math. Once your child has mastered these concepts, no matter how old he is or what official "grade" he's in, he can go on to advanced math, such as Algebra and Geometry.

I have been homeschooling officially since the year 2001, when my oldest son was 5, but I've struggled in math to be consistent in drilling my children and checking their work in math. I would have good intentions, but I wouldn't be able to keep it up, as I added more and more children to my day. Planning, drilling, teaching, checking, and grading six different levels of math each day was more than I could consistently do. Unfortunately, Scripture says that a child left to himself brings his mother to shame, and I have been ashamed many times at my children's lack of ability to do simple math calculations in their heads, to remember their multiplication tables, or even catching them trying to cheat or to simply not finish their work, because they gambled with the idea that I wouldn't check up on them anyway.

YHVH really been convicting me on this over the years, so as we've been building this curriculum, my prayer has been to be able to combine the children together as much as possible. I believe that **YHVH's yoke is easy and His burden is light**. I also don't believe that we mothers and fathers should exasperate our children or provoke them, giving them more worksheets and more practice problems than they are able to bear. For that reason, if you feel our worksheets have too many problems, then feel free to only assign half — or whatever you (as teacher) feel is best for your child!

I think you will be pleased with how YHVH has guided this curriculum. First of all, with the help of many advisors much wiser than I, we have scoured textbooks from the mid-1800s through the most modern secular, public-school, common-core textbooks. I think we've found the best examples, ones which are built on godly principles, not on secular ideas. Secondly, we have carefully reviewed and used common homeschooling curriculum, from the very advanced ABeka curriculum, to Rod and Staff and Horizons, Alpha Omega and PACE, Saxon math and Singapore Math, MathUSee and Systematic Math. We've studied books by authors such as Sam Blumenfield, Ruth Beechick, and Harvey Bluedorn. This curriculum is the result. We're pretty excited about it.

One thing we have noticed. **There is a specific body of facts to be learned, and after that, it's all about reviewing concepts until they become automatic.** It's a lot like grammar in that way. Once you know it, you know it. **But you can't really use it in life until you *over-learn* it.** Math needs to become more than an abstract concept. It needs to become automatic.

For that reason, we now firmly believe that you really can teach all your children together. For instance, on a Monday morning, a 10-year might be introduced to decimals for the first time, while his 13-year-old sibling can have the same lesson and review it. Both need to study it over and over, but for the 10-

year-old, it is for the purpose of learning the concept. For the 13-year-old, the purpose is for review and to help the concept become automatic and second-nature.

Do you remember the exact math problem you did in 7th grade on the 43rd day? No, I don't either. I firmly believe that **your children can do much of the same work each year**, repeating it over and over, without getting bored. Especially if time is spent with Mom each day, who customizes and explains the lessons for her own children, making it unique to their needs.

So here is how our curriculum works. **Mom has a meeting with her children on the first 3 days of each week.** She reviews and drills them on rote arithmetic facts: addition, subtraction, multiplication, division, and practical life skills, such as measurement problems. Our curriculum has tried to make this fun! She then teaches and reviews a new concept, usually one or two per week. She might teach them with a white board. (I love white boards!) She watches them solve the problem, first with her help then independently.

After that, the students do a worksheet on their own. I think it's ideal if they copy it from the assignment sheet (or a tablet or Kindle, if you want to get high-tech and use less ink). Copying gives their hand practice in being neat and tidy, an essential skill in life as well as arithmetic! Besides, it saves money. We just use simple notebook paper. However, you are welcome to just print the worksheets and let them write directly on them.

Mom has an answer key, or if you have several children, they could exchange papers the next morning and check each others' work.

Once a week (beginning in Week 2), we have a test for your children. YHVH tested the children of Israel in the wilderness, and we believe in testing in math as well. In addition, we believe in expecting good grades. If your children get a 100% score, then reward them handsomely. I give my kids a piece of candy, which is a special treat in our home. As we tell our children often, an architect building a bridge over a body of water would not be rewarded for 95% accuracy. Actually, the bridge depends entirely upon 100% accuracy – or people will die. So we only give candy or a reward if they get all of the answers correct.

On the other hand, some children have not had a good foundation in arithmetic. In that case, Mom, use your best judgment, and praise your children for improvement, for neatness, for a good attitude and character that is godly. We suggest praise and hugs – but save prizes and physical rewards for the ultimate goal of a 100% on a test.

So in a nutshell, drill with your children 3 times a week. (The other 2 days, we'll supply word problems for them to solve, usually from Scripture). Then give them homework assignments or tests to do independently, on their own time, 5 days a week.

- You'll have a Together Time with your younger children, and a second one with your older children (if you have various ages of children.)
- You'll need a system for checking their work consistently.
- You'll be teaching your children to be careful, to be accurate, and to know their facts quickly.
- You'll show them how to apply math to daily life through word problems.

- And you'll prepare them for life as well as advanced math in high school and college, if you should so choose.

May YHVH put His hand of blessing on our children, as we seek them to be skilled workmen for Him. And may His yoke be easy and His burden light.

~Anne

How to Use This Curriculum

SUPPLIES NEEDED

- Students will need **notebook paper** for writing their answers.
- The supplies will vary from week to week, but we tried to include things you should already have around your house.
- Some lessons require **printing charts from the Internet**.
- The teacher should check the lesson plans for the week early enough to collect the supplies she'll need and to print any needed charts.

Manipulatives:

- **Flashcards** for addition, subtraction, multiplication, and division are handy. You could make these yourself, or you could purchase them inexpensively at a dollar store.

Other:

- A dry-erase board hung on the wall comes in very handy for math each day.
- Dry-erase markers and an eraser.
- A 12-inch ruler.
- Each child will need a pencil with an attached eraser, plus crayons.
- A compass and a protractor.

If money is tight, be creative with what you have on hand!

AGES

This curriculum is intended primarily for children from kindergarten through 8th grade.

Need Help Teaching Arithmetic?

If you are struggling with explaining an arithmetic concept, don't be nervous. Send us an email at support@homeschoolingtorah.com if you're having trouble understanding or explaining a topic. We'll make a video and show you how we teach it at our house. That's what community is for!



Arithmetic Teacher Guide

Week 1

4th – 8th Grades

Goals

- Place value to millions
- Adding whole numbers with carrying
- Subtracting whole numbers with borrowing
- Multiplying whole numbers with carrying

Supplies

- *General Supplies Needed This Year –*
 - White board or chalkboard
 - [Clock](#)
 - Charts for addition and multiplication. If your child is still memorizing his multiplication facts, you might allow him to keep the multiplication chart with him while he does his written assignments each day, at least for a few weeks.
 - [Hundreds Chart](#)
 - [Multiplication Table](#)

You will quiz your student over **Addition Families 1-6** this week. You may wish to print this chart and keep it handy when doing math drills each day.

$0 + 1 = 1$ $1 + 0 = 1$	$0 + 3 = 3$ $1 + 2 = 3$ $2 + 1 = 3$ $3 + 0 = 3$	$0 + 5 = 5$ $1 + 4 = 5$ $2 + 3 = 5$ $3 + 2 = 5$ $4 + 1 = 5$ $5 + 1 = 5$
$0 + 2 = 2$ $1 + 1 = 2$ $2 + 0 = 2$	$0 + 4 = 4$ $1 + 3 = 4$ $2 + 2 = 4$ $3 + 1 = 4$ $4 + 0 = 4$	$0 + 6 = 6$ $1 + 5 = 6$ $2 + 4 = 6$ $3 + 3 = 6$ $4 + 2 = 6$ $5 + 1 = 6$ $6 + 0 = 6$

Quiz your 5th-8th graders over the **Multiplication Families 0-6** this week. Print a [multiplication table](#) to keep handy when doing math drills each day.



Note:

- “Student” and “Child” are used synonymously in these lesson plans. Also, drills can be played with just one child and his Parent. On the other hand, we’ve played these games with children in grades 2-11 at the same time. Just adapt the ideas to fit your unique family.

Day 1

- **Math Drill Together**

- Write the numbers 0-9 in a mixed up order on the board. When you point to a number, the child gives the answer to the number **plus** 1. Repeat with the number **plus** 2, plus 3, plus 4, etc. (Refer to **Addition Families 1-6** chart.)
- Review multiplication facts from 1-6. (number **times** 2, etc.)
- Using the Hundreds Chart, count by 10s from 0 to 100. Count by 10s from 1 to 91.
- Practice telling time on a clock.
- Oral Combinations:
The point of oral combinations is to help students learn to calculate quickly in their heads. Parent calls out the addends in a steady, rhythmic voice. She should expect a quick response as soon as she says “equals.” As the year goes on and the students get faster, do the drills at a quicker pace.

$$6 + 1 + 3 = 10$$

$$4 + 2 + 3 = 9$$

$$1 + 0 + 4 = 5$$

$$5 + 2 + 4 = 11$$

$$3 + 5 + 0 = 8$$

$$3 + 1 + 0 + 5 + 2 = 11$$

- **Written Assignment**

- Be sure your student knows how to read large numbers aloud. Each comma is a word, such as “million” or “thousand.” 123,456,789 would be read “one hundred twenty three *million*, four hundred fifty six *thousand*, seven hundred eighty nine.”

Notice that the word “and” is not said. In other words, don’t say “seven hundred *and* eight nine.”

If your student needs practice, read the following large numbers, and ask your student to write them for you correctly on the white board. For example:

- 7,341 (read “seven thousand three hundred forty one”)
- 18,984
- 37,319
- 900,516
- 420,280
- 810,207
- 1,100,101
- 45,724,247
- 80,070,507
- 3,037,906,200



Day 2

• Math Drills Together

- Play Rhythm. Parent uses a “clap, clap, clap, snap” rhythm. On the claps, parent calls out an addition fact (such as $2 + 3$). The child responds with the answer on the snap (5). Try to go as far as possible without breaking up the rhythm. With older children, continue playing with multiplication facts.
- Using the Hundreds Chart, count by even numbers. Count by odd numbers.
- Count the minutes on a clock by 5s from 5 to 60.
- Review place value by drawing rows and columns like this on the board. Have students fill in the blank areas.

	1000s	100s	10s	1s
6,345	<i>Example:</i> 6	3	4	5
259				
2,462				
783				

- Continue with larger numbers (and a larger table) for more advanced students, such as:

3,279,364 10,596 1,234,567

- Don't forget to include small numbers, such as

6 23 869

• Written Assignment

- Knowing correct terminology for arithmetic processes helps us be able to communicate with each other, helps us develop strategies for solving word problems, and will help when we learn advanced math such as algebra. Be sure your student learns the proper terms of addition, subtraction, and multiplication problems this week (including how to spell the words correctly).
- Teach your student how to check an addition problem. See answer key for an example.

Day 3

• Math Drills Together

- Write the numbers 0-9 in a mixed up order on the board. When you point to a number, the child gives the answer to the number **plus** 1. Repeat with the number **plus** 2, plus 3, plus 4, etc. (Refer to Addition Families 1-6 chart.)
- Do the same with multiplication facts from 1-6.
- Parent calls out a sum between 2 and 6. Child gives two addends that could equal Parent's sum. For instance, Parent says, “5” and child answers with “2 + 3.” Answers will vary.
- Review terminology for arithmetic problems. Be sure child can spell each word.

In this addition problem, the answer (57) is called a **sum**.
The numbers being added (42 and 15) are called **addends**.

$$\begin{array}{r}
 42 \text{ addend} \\
 + 15 \text{ addend} \\
 \hline
 57 \text{ sum}
 \end{array}
 \left. \vphantom{\begin{array}{r} 42 \\ + 15 \\ \hline 57 \end{array}} \right\} \begin{array}{l} \text{Write addition problems vertically.} \\ \text{Begin adding in the ones' place (2 + 5 = 7).} \end{array}$$



- **Written Assignment**
 - You might want to point out to your student that there are many ways to count money. The method we're teaching the student today is in preparation for more difficult number problems (like equations and algebra!). This is probably not the easiest way to count the change in Mom's purse. 😊
 - When writing amounts less than a dollar, have your child write a zero before the decimal place. This will help him hold the place and keep things neat, and it will often remind him to use a decimal point in case he might forget.

Day 4

- **Math Drills Together**
 - On Days 4-5 of each week, we will do story problems from the Bible. Your younger children are invited to join in if they think they can!
 - How many hours did it take God to create the world? (See Genesis 1. Answer: 144, or 6 days x 24 hours)
- **Written Assignment**
 - Today, your student will read these instructions: "To check a subtraction problem, add the subtrahend and difference together. The sum of this should equal the minuend." Can your student figure out what to do from these words alone? (See answer key for an example.)
 - Some of the problems require subtraction with borrowing. If you need help teaching borrowing (also called "regrouping"), see: https://www.khanacademy.org/math/arithmetic/addition-subtraction/sub_borrowing

Day 5

- **Math Drills Together**
 - Going to the astronomical section of a weather website (such as <http://www.wunderground.com>), calculate how many hours of daylight your location will receive during the 6 days of this week. (Consider "daylight" from sunrise to sundown.) Do not count Shabbat. Does this give you a new appreciation of how amazing our Creator is?
- **Written Assignment**
 - Review terms for addition and subtraction problems. (**Addend, addend, sum** and **minuend, subtrahend, difference**)
 - When teaching **factor, factor, product**, talk about a factory and how factories make products very quickly. They **multiply** products!
 - Some of the problems require carrying. If you need help teaching carrying (also called "regrouping"), see: https://www.khanacademy.org/math/arithmetic/multiplication-division/multi_digit_multiplication/e/multiplication_2



Arithmetic Teacher Guide

Week 2

4th – 8th Grades

Quiz over **Addition Families 1-10** this week. You may wish to print this page.

0 + 1 = 1 1 + 0 = 1	0 + 5 = 5 1 + 4 = 5 2 + 3 = 5 3 + 2 = 5 4 + 1 = 5 5 + 1 = 5	0 + 9 = 9 1 + 8 = 9 2 + 7 = 9 3 + 6 = 9 4 + 5 = 9 5 + 4 = 9 6 + 3 = 9 7 + 2 = 9 8 + 1 = 9 9 + 0 = 9
0 + 2 = 2 1 + 1 = 2 2 + 0 = 2	0 + 6 = 6 1 + 5 = 6 2 + 4 = 6 3 + 3 = 6 4 + 2 = 6 5 + 1 = 6 6 + 0 = 6	0 + 10 = 10 1 + 9 = 10 2 + 8 = 10 3 + 7 = 10 4 + 6 = 10 5 + 5 = 10 6 + 4 = 10 7 + 3 = 10 8 + 2 = 10 9 + 1 = 10 10 + 0 = 10
0 + 3 = 3 1 + 2 = 3 2 + 1 = 3 3 + 0 = 3	0 + 7 = 7 1 + 6 = 7 2 + 5 = 7 3 + 4 = 7 4 + 3 = 7 5 + 2 = 7 6 + 1 = 7 7 + 0 = 7	
0 + 4 = 4 1 + 3 = 4 2 + 2 = 4 3 + 1 = 4 4 + 0 = 4	0 + 8 = 8 1 + 7 = 8 2 + 6 = 8 3 + 5 = 8 4 + 4 = 8 5 + 3 = 8 6 + 2 = 8 7 + 1 = 8 8 + 0 = 8	

Quiz over the Multiplication Families 0-6 this week. Print a multiplication table to keep handy when doing math drills each day.



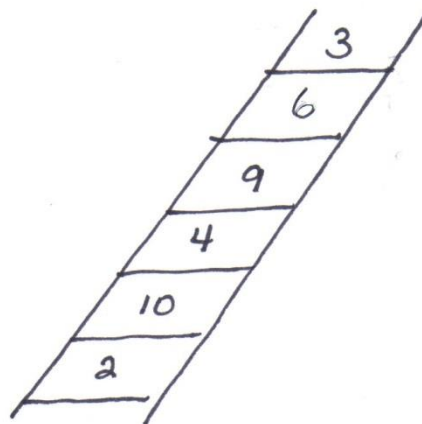
Day 1

• **Math Drills Together**

- Review terminology for arithmetic problems. Be sure child can spell each word.

42	<i>addend</i>	57	<i>minuend</i>	23	<i>factor</i>
$+ 15$	<i>addend</i>	$- 14$	<i>subtrahend</i>	$\times 5$	<i>factor</i>
57	<i>sum</i>	43	<i>difference</i>	115	<i>product</i>
				9	<i>quotient</i>
		<i>divisor</i>	$3 \overline{) 27}$		<i>dividend</i>

- This week, we are reviewing **Addition Families 1-10** and **Multiplication Families 0-6**.
- Draw a ladder on the white board, and fill in some numbers. Say a number, then point to the bottom number on the ladder. Student adds the two numbers together. See how quickly you can move up the ladder.



- Repeat for multiplication facts.
- Oral Combinations:
Remember, the point of oral combinations is to help students learn to calculate quickly in their heads. Parent calls out the addends in a steady, rhythmic voice. You should expect a quick response as soon as you say "equals." As the year goes on and the students get faster, do the drills at a quicker pace.

$$4 \times 4 + 4 = 20$$

$$9 + 3 \times 4 + 2 = 50$$

$$2 \times 2 + 2 - 2 = 4$$

$$7 + 3 - 6 = 4$$

$$10 - 6 \times 3 + 7 = 19$$

$$3 \times 4 - 3 \times 2 = 18$$

- Use flashcards to review multiplication facts for the 6s family. (Option: Visit Multiplication.com, a website with fun games, as well as tips for reviewing facts.)



- **Written Assignment**

- #1-4 – What strategies can the student use to add these numbers horizontally? For instance, he needs to add the ones’ digits first, then the tens’ digits.

Day 2

- **Math Drills Together**

- Play Rhythm. Parent uses a “clap, clap, clap, snap” rhythm. On the claps, parent calls out an addition fact (such as 6 + 4). The child responds with the answer on the snap (10). Try to go as far as possible without breaking up the rhythm. With older children, continue playing with multiplication facts.
- Using the Hundreds Chart, count by even numbers to 50, then count back down to 0 by even numbers. Repeat with odd numbers to 49 and back down again.
- Dictate these numbers to your student, and ask him to write them on the white board:

3,271,313	9,892,067	2,478,309
231,672	7,431,678	35,001

- Oral Combinations:
These are a little tricky. See how your student does! Encourage speed. 😊

$2 \times 2 - 3 + 2 \times 1 + 1 - 2 \times 2 = 4$
 $4 - 1 - 1 + 1 + 1 - 3 = \text{how many less than 4? } 3$
 $3 - 2 + 3 - 1 - 1 \times 2 - 1 = \text{how many times 1? } 3$
 $1 + 2 - 1 \div 2 + 2 - 1 = \text{how many more than 2? } 0$

- Use flashcards to review multiplication facts for the 6s family (or use Multiplication.com).

- **Written Assignment**

- Section F – How well does your student know his 6 multiplication facts?

Day 3

- **Math Drills Together**

- Today we’re going to learn how to add up large sums quickly.

To play, write the addition problem on the white board. Point to the addends in the ones’ column, and teach your child to add in his head by thinking *only* the sums.

Like this:

7	<i>Point to 7. Say nothing.</i>
6	<i>Point to 6. Say only “13”</i>
3	<i>Point to 3. Say only “16”</i>
2	<i>Point to 2. Say only “18”</i>
<u>+ 2</u>	<i>Point to 2. Say only “20”</i>
20	



Our objective is to teach the student to think only the *sums (answers)* in his head, rather than thinking $6+3=9$. This saves quite a bit of time in adding!

Okay, let's practice. Write these on the white board:

$$\begin{array}{r} 2 \\ 1 \\ 5 \\ 6 \\ \hline + 1 \\ \hline 15 \end{array}$$

$$\begin{array}{r} 5 \\ 3 \\ 6 \\ 0 \\ \hline + 2 \\ \hline 16 \end{array}$$

- Play Pop Up:
Call out these addends. Student gives a 3rd addend, to make a sum of 10.
Student "pops up" when he knows the correct addend.

4, 5 (1) 3, 3 (4) 5, 2 (3) 4, 3 (3)

- Oral Combinations:
 - $12 - 9 + 3 = 6$
 - $5 + 4 - 9 = 0$
 - $12 - 8 + 7 - 5 = 6$
 - $10 - 5 + 6 = 11$
 - $1 \times 2 - 1 \times 3 - 2 - 1 =$ how many less than 3? 3
 - $3 - 2 + 1 \times 2 - 1 - 2 + 1 = 2$
 - $4 - 2 - 1 \times 3 - 1 \times 2 - 1 = 3$
- Use flashcards to review multiplication facts for the 6s family (or use Multiplication.com).
- **Written Assignment**
 - Your student might want to consider solving these problems on a sheet of notebook paper.

Day 4

- **Math Drills Together**

Warning to Parents: We highly recommend using the King James Version for this word problem. Some of the newer translations give the answers too quickly. ☺

- The book of *Numbers*, called *Bamidbar* in the Hebrew Bible, is called "Numbers" in English because it contains several censuses of the Israelite people.
- Read Numbers 1:1-3 and tell why YHWH wanted Moses and Aaron to number the people for the first census.
- How old were the ones who were counted?
- On a piece of paper, make three neat columns.
 1. In the first column, neatly list the name of the tribe.
 2. In the second column, write the number of men from that tribe.



- In the third column, write the verse number in which you found the answer (from Numbers 1).

Reuben 46,500 v. 21

- Add up all the tribes, and tell the sum of the men of Israel included in this census.
- What tribe was not counted, and why not? (See Numbers 1:47-50, if you can't figure out the answer from your addition problem.)
- **Written Assignment**
 - You may want to do Section H with your student.

Day 5

- **Math Drills Together**
 - *The following assignment is taken from <http://spacemath.gsfc.nasa.gov/books.html>, which was written by people who do not believe YHWH created the world. They talk about how difficult it is to number the stars. If you are interested in astronomy, you might enjoy reading the activity books from this publisher.*
 - Read Genesis 15:5.
 - It is impossible to count the large things in space the same way we do apples in a fruit stand!
 - On June 18, 2007 Jeremy Harper began counting to one million. It took him until September 14, 2007 to finish counting out loud. He is now in the *Guinness Book of World Records*!
 - When it comes to counting large things in space, astronomers use many different short-cuts. The most important one is to group things (like stars) into equal-numbered groups, then multiply the number in each group by the total number of groups. This is very important in star counting!
 - **Problem 1** – An astronomer took a photograph of an area of the sky with his telescope shown on the left. He divided this photograph into 9 equal areas, and counted 160 stars in each box.
 - How many stars are in his photograph?
 - If the counting of the 160 stars took 2 minutes, how long would it have taken him to count all of the stars individually in the photograph?
 - **Problem 2** – If the astronomer divided the entire sky into 183,000 squares, each square would be the same size as the photograph. How many stars would there be in the entire sky?
 - **Problem 3** – If you had counted each star one-by-one, how many days would it take for you to complete your counting?
- **Written Assignment**
 - Today is your student's first test! Reward a *perfect* score with something special, but also be sure to praise your child for his effort, for neatness, and for a good attitude.
 - While checking is only required for Sections I and J, remind your child that checking all his answers is often the difference between a perfect test score and a few incorrect answers.



Arithmetic Teacher Guide

Week 3

4th – 8th Grades

Day 1

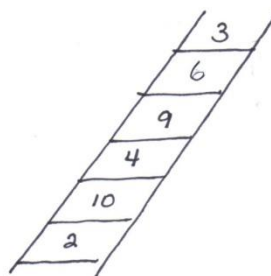
- **Math Drill Together**

- This week, we are reviewing addition plus **Multiplication Families 0-9**.

Start with a brief quiz over the following. Take note of combinations that are especially difficult for your students. (Combinations marked in gray are just “twins,” or the opposites of other numbers on the chart. You might not need to quiz these.)

3x4=12	4x4=16	5x4=20	6x4=24	7x4=28	8x4=32	9x4=36
3x5=15	4x5=20	5x5=25	6x5=30	7x5=35	8x5=40	9x5=45
3x6=18	4x6=24	5x6=30	6x6=36	7x6=42	8x6=48	9x6=54
3x7=21	4x7=28	5x7=35	6x7=42	7x7=49	8x7=56	9x7=63
3x8=24	4x8=32	5x8=40	6x8=48	7x8=56	8x8=64	9x8=72
3x9=27	4x9=36	5x9=45	6x9=54	7x9=63	8x9=72	9x9=81

- Draw a ladder on the white board, and fill in some numbers. Say a number, then point to the bottom number on the ladder. Student adds the two numbers together. See how quickly you can move up the ladder.



- Repeat for multiplication facts. Emphasize facts your student especially needs to work on.
- Oral Combinations:
 $12 - 9 + 7 - 5 = 5$ $8 + 9 - 6 - 4 = 7$ $25 - 7 - 8 + 7 = 17$
 $18 + 9 + 3 - 6 = 24$ $15 - 8 - 5 + 23 = 25$ $18 + 5 - 6 - 9 = 8$
- Use flashcards to review multiplication facts for the 7s family. (Option: Visit Multiplication.com, a website with fun games, as well as tips for reviewing facts.)

- **Written Assignment**

- Assignment at bottom of page – These time measurement problems are new today but aren't difficult. Just be sure student *starts* by adding the seconds, then the minutes, then the hours. This will be important next week, when we ask the student to “carry” some of the time from one column to another.



Day 2

• Math Drill Together

- Play Rhythm. Parent uses a “clap, clap, clap, snap” rhythm. On the claps, parent calls out an multiplication fact (such as 6×4). The child responds with the answer on the snap (24). Try to go as far as possible without breaking up the rhythm.
- Using the Hundreds Chart, count by even numbers to 50, then count back down to 0 by even numbers. Repeat with odd numbers to 49 and back down again.
- Oral Combinations:
 - $3 + 8 + 4 + 6 + 9 = 30$
 - $2 + 9 + 7 + 4 + 3 = 25$
 - $7 + 2 + 4 + 3 + 3 = 19$
 - $8 + 3 + 7 + 2 + 6 = 26$
 - $5 + 7 + 9 + 4 + 3 = 28$
 - $9 + 8 + 7 + 5 + 6 = 35$
 - $8 + 3 + 2 + 7 + 9 = 29$
 - $5 + 2 + 7 + 4 + 6 = 24$
 - $2 + 6 + 3 + 0 + 3 = 14$
 - $5 + 4 + 2 + 1 + 4 = 16$

- Add these sums quickly on the whiteboard. Like this:

$$\begin{array}{r} 7 \\ 6 \\ 3 \\ 2 \\ + 2 \\ \hline 20 \end{array} \quad \begin{array}{l} \textit{Point to 7. Say nothing.} \\ \textit{Point to 6. Say only "13"} \\ \textit{Point to 3. Say only "16"} \\ \textit{Point to 2. Say only "18"} \\ \textit{Point to 2. Say only "20"} \end{array}$$

Remind student to think only the *sums* in his head, rather than thinking $6+3=9$. This saves quite a bit of time in adding!

7	3	9	8	5	2
4	2	5	4	9	8
8	6	4	7	6	6
9	4	8	6	3	8
<u>5</u>	<u>9</u>	<u>6</u>	<u>5</u>	<u>2</u>	<u>7</u>
33	24	32	30	25	31

- Use flashcards to review multiplication facts for the 8s family (or use Multiplication.com).
- **Written Assignment**
 - Finding the sums horizontally – Can your student see the patterns in these problems?
 - Section E – How well does your student know his 7 and 8 times tables?



Day 3

- **Math Drill Together**

- Play Pop Up:
- Call out these addends. Student gives a 3rd addend, to make a sum of 20. Student “pops up” when he knows the correct addend.

9, 4 (7)	9, 3 (8)	9, 1 (10)	9, 8 (3)
9, 5 (6)	9, 7 (4)	9, 10 (1)	9, 9 (2)
9, 6 (5)	9, 2 (9)	9, 0 (11)	9, 11 (0)

- Oral Combinations:
 - $6 + 1 \times 4 - 3 + 7 - 5 = 27$
 - $4 + 5 \times 3 - 6 + 2 - 7 = 16$
 - $6 \times 2 + 7 - 4 - 9 \times 8 = 48$
 - $5 \times 7 + 7 - 2 + 8 - 8 = 40$
 - $4 + 2 \times 5 + 4 - 3 + 9 = 40$
 - $8 \times 5 - 3 + 5 - 9 + 2 = 35$
 - Use flashcards to review multiplication facts for the 9s family (or use Multiplication.com).
- **Written Assignment**
 - Section F – We’ll discuss larger division problems next week. For now, these are just the opposite of the multiplication facts your student should already know.

Day 4

- **Math Drill Together**

- *Note to Parents: Feel free to adapt this assignment to reflect your family’s observance of the biblical calendar. This is an excellent activity for reinforcing multiples of sevens, as well as many other number facts.*

YHWH’s calendar is a little different than the one most people use. For instance, most people start their year with January 1.

YHWH says that the month in which Passover is celebrated “shall be for you the beginning of months. It shall be the first month of the year for you” (Exodus 12:2, ESV). This is in the spring, in March or April.

In addition, YHWH’s months are based upon the moon, with a new moon starting each month. The Hebrew month is typically either 29 or 30 days long because it takes approximately 29.5 days for the moon to orbit the earth one time. During the time of Yeshua (and before), observers in the Land of Israel would go outside just before sunset on the 29th day of each month. They would look for the first crescent sliver of the new moon in the evening sky. If they saw the first crescent sliver, they would go and tell the Priesthood at the Temple Mount. If they did not see the new moon, they would wait and look again on the 30th day.



Can you draw a calendar for this year, beginning back in the spring as Exodus 12:2 says? (This would be the month of Nisan on a modern Jewish calendar.) If you would prefer, you can print [blank calendars](#).

- **Written Assignment**
 - How well does your student know his multiplication tables? Is he weak on any specific ones? **Now** would be a great time to get these learned really well! 😊

Day 5

- **Math Drill Together**
 - Read Genesis 7:2-3. How many of each clean animal were present on the ark? How many of each unclean animal were present on the ark? How many of each of the birds were present on the ark?
 - Read through Leviticus 11. Make a list of each animal named, and next to the animal, tell how many would have been on the ark.
 - Add up the total number of animals you listed. If you're feeling artistic, draw a picture of the ark with all of these animals marching up to the door. It might look a little different than the normal preschool version! 😊
- **Written Assignment**
 - Today is a test. Remind your student that checking all his answers is often the difference between a perfect test score and a few incorrect answers.



Week 1 - Day 1

Assignments

Draw the following chart on your paper:

Hundred Millions	Ten Millions	One Millions	Hundred Thousands	Ten Thousands	One Thousands	Hundreds	Tens	Ones
3	1	6	2	3	5	5	1	6

Write each of the following numbers, placing each digit in its correct place on the chart. (See example for the first one.)

1. three hundred sixteen million, two hundred thirty five thousand, five hundred sixteen
2. twenty five million, four hundred eleven thousand, six hundred thirty five
3. eighty nine million, twenty three thousand, seven hundred fifty two
4. four hundred fifty million
5. six hundred ninety two million, six hundred ninety two thousand, six hundred ninety two

Rewrite these numbers, using commas correctly.

6. 216523485
7. 84685212
8. 135984328
9. 354005430
10. 1057418

Find the sums.

11. 9,785; 4,632; 8,972
12. 6,985; 1,197; 3,059
13. 27,352; 95,787; 16,259
14. 89,321; 65,297; 23,859

Solve.

15. $6 + 5 + 3$
16. $12 + 8 + 4$
17. $3 + 9 + 9$
18. $35 + 6 + 8$
19. $9 + 9 + 3$
20. $19 + 6 + 5$



Week 1 – Day 2

Assignments

Write each of the following numbers.

1. five million three thousand two
2. five hundred thousand thirty two
3. five thousand three hundred twenty

In this addition problem, the answer (57) is called a **sum**.
The numbers being added (42 and 15) are called **addends**.

$$\begin{array}{r} 42 \text{ addend} \\ + 15 \text{ addend} \\ \hline 57 \text{ sum} \end{array} \left. \vphantom{\begin{array}{r} 42 \\ + 15 \\ \hline 57 \end{array}} \right\} \begin{array}{l} \text{Write addition problems vertically.} \\ \text{Begin adding in the ones' place (2 + 5 = 7).} \end{array}$$

Solve these sums vertically. Write **addend** or **sum** next to each number.

4. $472 + 521$
5. $376 + 541 + 687$
6. $97 + 25 + 62$

To check if a sum is correct, simply re-add the numbers starting at the *bottom* and working up toward the top. Write the sum at the top, and compare the two to see if your sums are the same.

7. $902 + 859 + 787$
8. $587 + 396 + 849$
9. $3,241 + 6,895 + 2,059$
10. $8,397 + 6,554 + 8,916$

Solve quickly.

11. 2×3
12. $4 + 9$
13. 4×7
14. $6 + 7$
15. 3×9
16. $2 + 9$
17. 1×4
18. $3 + 8$
19. 3×8
20. $6 + 9$



Week 1 – Day 3

Assignments

Write the value of each, using dollars and cents. Example: A quarter is worth \$0.25.

1. penny
2. nickel
3. dime
4. quarter
5. half dollar
6. dollar

A parenthesis tells us to multiply. Write the values, using this method:

$$\begin{array}{l} 2 \text{ quarters} \\ 2(.25) = \$0.50 \end{array}$$

7. 6 pennies
8. 5 nickels
9. 4 dimes
10. 3 quarters
11. 2 half dollars
12. 7 dollars

Solve these money problems, using this method:

$$\begin{array}{l} 4 \text{ nickels} + 3 \text{ dimes} - 6 \text{ pennies} \\ 4(.05) + 3(.10) - 6(.01) = \\ .20 + .30 - .06 = \$0.44 \end{array}$$

13. 7 nickels + 2 dimes – 1 quarter
14. 11 pennies + 5 nickels – 1 dime
15. 3 quarters – 2 dimes + 1 nickel
16. 7 dimes – 1 half dollar + 3 quarters

Add and check each sum.

17. $479 + 652 + 889$
18. $305 + 687 + 491$
19. 2,392; 6,875; 5,916
20. 12,306; 87,552; 97,621



Week 1 – Day 4

Assignments

In this subtraction problem, the first number (57) is called the **minuend**.

The number being subtracted from the minuend (14) is called the **subtrahend**. (**Sub** means “under.”)

The answer is called the **difference** (43). Why do you think this is?

57	<i>minuend</i>	}	Write subtraction problems vertically. Begin subtracting in the ones' place ($7 - 4 = 3$).
- 14	<i>subtrahend</i>		
43	<i>difference</i>		

Solve these differences vertically. Write **minuend**, **subtrahend**, or **difference** next to each number.

1. $799 - 257$
2. $876 - 423$

To check a subtraction problem, add the subtrahend and difference together. The sum of this should equal the minuend.

Solve these differences, and check each one.

3. $279 - 165$
4. $399 - 298$
5. $687 - 587$
6. $5,826 - 1,503$

Solve these.

7. 476 is how much more than 329?
8. 652 is how much less than 903?
9. 416 is how much more than 389?
10. 2,308 is how much less than 2,314?

Solve.

11. $466 + 328$
12. $144 - 89$
13. $2,329 + 1,462$
14. $3,019 - 2,871$
15. $973 - 284$
16. $654 + 298$
17. $146 - 87$
18. $3,164 - 2,895$



Week 1 – Day 5

Assignments

In this multiplication problem, the numbers being multiplied (23 and 5) are called **factors**. The answer is called the **product** (115).

$$\begin{array}{r} 23 \\ \times 5 \\ \hline 115 \end{array}$$

factor

factor

product



Write multiplication problems vertically.

Solve the one's place first.

Find these products. Write each problem vertically. Write **factor** or **product** next to each number.

1. 76×7
2. 96×4
3. 89×6
4. 34×3

Find these products.

5. 975×6
6. 329×7
7. 486×5
8. 209×6

Find the sums.

9. 67, 25, 89
10. 23, 69, 48
11. 209, 876, 315
12. 124, 387, 216

Find the differences.

13. $239 - 186$
14. $504 - 281$
15. $1,624 - 895$
16. $3,062 - 2,938$

Solve.

17. How many in all? 329, 876, 913
18. How much more is 16,329 than 14,852?
19. How much is 6 pennies, 14 dimes, and 26 quarters worth?
20. How much less is 116 than 329?

A. Find the sums horizontally. (Do not rewrite. Solve in your head.)

1. $75 + 25 + 63 =$

2. $38 + 42 + 15 =$

3. $44 + 53 + 9 =$

4. $14 + 19 + 21 =$

B. Find the sum. Check.

1.
$$\begin{array}{r} 47 \\ + 95 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 63 \\ + 87 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 6,329 \\ + 4,814 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 3,972 \\ + 689 \\ \hline \end{array}$$

C. Subtract and check each answer.

1.
$$\begin{array}{r} 432 \\ - 168 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 149 \\ - 87 \\ \hline \end{array}$$

D. Find the difference.

1.
$$\begin{array}{r} \$30.25 \\ - 16.87 \\ \hline \end{array}$$

2.
$$\begin{array}{r} \$30.00 \\ - 11.53 \\ \hline \end{array}$$

E. Find the product.

1.
$$\begin{array}{r} 724 \\ \times 3 \\ \hline \end{array}$$

2.
$$\begin{array}{r} 296 \\ \times 4 \\ \hline \end{array}$$

3.
$$\begin{array}{r} 351 \\ \times 5 \\ \hline \end{array}$$

4.
$$\begin{array}{r} 478 \\ \times 6 \\ \hline \end{array}$$

F. Find the sum. Check.

$$\begin{array}{r} 1. \quad 478 \\ + \quad 329 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 250 \\ + \quad 146 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 6,873 \\ + \quad 9,208 \\ \hline \end{array}$$

Write "true" or "false."

- _____ 1. The minuend is the top number in a subtraction problem.
- _____ 2. In 7,286, two is in the thousands' place.
- _____ 3. The sum is the answer in an addition problem.
- _____ 4. The order of the addends may be switched without changing the sum.

G. Find the product.

$$\begin{array}{r} 1. \quad 4,598 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 3,742 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 1,764 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 6,012 \\ \times \quad 4 \\ \hline \end{array}$$

Solve.

1. 392 is how much more than 329? _____
2. 548 is how much less than 987? _____

Solve these money problems, using the method we learned last week:

4 nickels + 3 dimes - 6 pennies

$$4 (.05) + 3 (.10) - 6 (.01) =$$

$$.20 + .30 - .06 = \$0.44$$

_____ 1. 8 nickels + 4 dimes - 3 quarters

_____ 2. 4 dimes + 3 nickels - 5 pennies

_____ 3. 6 quarters - 6 dimes + 6 nickels

_____ 4. 9 dimes - 1 half dollar + 9 quarters

Solve.

_____ 1. $466 + 126 + 784$

_____ 2. $144 + 239 - 89$

_____ 3. $2,329 + 329 - 2,000$

_____ 4. $1,234,567,890 + 98,765,432,100$

_____ 5. $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10$

_____ 6. $1 \times 2 \times 3 \times 4 \times 5 \times 6$

_____ 7. $176 - 47$

_____ 8. Two thousand sixteen minus four hundred thirty five

Answer these questions.

_____ 1. How many fours equal forty eight?

_____ 2. How many dimes are in three dollars?

_____ 3. How many fives are in thirty five?

_____ 4. How many twos are in twenty six?

H. Find the product.

$$\begin{array}{r} 1. \quad 42 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 27 \\ \times \quad 5 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 509 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 156 \\ \times \quad 3 \\ \hline \end{array}$$

Solve.

1. 321 is how much more than 1? _____
2. 789 is how much less than 967? _____
3. 654 is how much more than 456? _____
4. 1,234 is how much less than 4,321? _____

Rewrite vertically. Solve and check.

1. $1,326 + 3,527$
2. $987 - 243$
3. $248 + 151$
4. $23,368 - 12,257$

I. Solve.

1.

540	872	324		2,864
752	944	945	636	2,517
	330	444		3,277
808	408		692	2,127
2,832	2,554	2,093	2,730	2,288
				2,620

Rewrite and solve.

_____ 1. $325 + 286 + 729 + 54$

_____ 2. The sum of 3,846; 983; 9,725; and 6,703.

_____ 3. $5,728 \times 3$

_____ 4. 768×4

_____ 5. 325×5

_____ 6. $\$17.03 - \6.84

_____ 7. $5,000 - 3,821$

_____ 8. $97,326 \times 6$

J. Find the sum. Check.

$$\begin{array}{r} 1. \quad 16,000 \\ + \quad 5,960 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 27,096 \\ + \quad 18,496 \\ \hline \end{array}$$

K. Find the difference.

$$\begin{array}{r} 1. \quad \$11.29 \\ - \quad 9.38 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \$163.95 \\ - \quad 87.98 \\ \hline \end{array}$$

Solve.

_____ 1. 111 is how much more than 89?

_____ 2. 48 is how much less than 78?

_____ 3. 279 is how much more than 163?

_____ 4. 25 is how much less than 134?

Test Score _____

A. Find the sum.

$$\begin{array}{r} 1. \quad 679 \\ + \quad 891 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 977 \\ + \quad 343 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 994 \\ + \quad 201 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 865 \\ + \quad 394 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 826 \\ + \quad 978 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 522 \\ + \quad 547 \\ \hline \end{array}$$

B. Find the difference. Check.

$$\begin{array}{r} 1. \quad 538 \\ - \quad 256 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 320 \\ - \quad 189 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 4,530 \\ - \quad 3,762 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 5,827 \\ - \quad 2,087 \\ \hline \end{array}$$

C. Find the product.

$$\begin{array}{r} 1. \quad 724 \\ \times \quad 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 296 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 351 \\ \times \quad 6 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 478 \\ \times \quad 9 \\ \hline \end{array}$$

Solve by first adding the seconds, then the minutes, and finally, the hours.

$$\begin{array}{l} 23 \text{ hr. } 7 \text{ min. } 20 \text{ sec.} \\ \underline{18 \text{ hr. } 45 \text{ min. } 32 \text{ sec.}} \end{array}$$

$$\begin{array}{l} 14 \text{ hr. } 15 \text{ min. } 30 \text{ sec.} \\ \underline{15 \text{ hr. } 24 \text{ min. } 16 \text{ sec.}} \end{array}$$

$$\begin{array}{l} 8 \text{ hr. } 12 \text{ min. } 30 \text{ sec.} \\ \underline{3 \text{ hr. } 18 \text{ min. } 24 \text{ sec.}} \end{array}$$

D. Find the sum.

$$\begin{array}{r} 1. \quad 46 \\ + 78 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 20 \\ + 92 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 19 \\ + 63 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 39 \\ + 40 \\ \hline \end{array}$$

Find the sums horizontally. Don't recopy each problem. Try to work it in your head and write down only the answer.

1. $34 + 60 + 40 + 70 + 80$

2. $88 + 40 + 60 + 30 + 20$

3. $84 + 70 + 60 + 90 + 70$

4. $98 + 70 + 30 + 10 + 40$

5. $34 + 61 + 41 + 71 + 81$

6. $88 + 41 + 61 + 31 + 21$

E. Find the product.

$$\begin{array}{r} 1. \quad 846 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 183 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 199 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 755 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5. \quad 821 \\ \times \quad 8 \\ \hline \end{array}$$

$$\begin{array}{r} 6. \quad 584 \\ \times \quad 8 \\ \hline \end{array}$$

Solve.

1. 462 is how much more than 341?

2. 654 is how much less than 869?

In this division problem, the **dividend** (27) is being divided by the **divisor** (3). The answer is called the **quotient** (9).

$$\begin{array}{r} 9 \text{ quotient} \\ \text{divisor } 3 \overline{) 27} \text{ dividend} \end{array}$$

F. Find the quotients. Label the parts of a division problem for the first two.

1. $4 \overline{) 24}$ 2. $4 \overline{) 36}$ 3. $5 \overline{) 25}$ 4. $8 \overline{) 24}$ 5. $6 \overline{) 36}$ 6. $6 \overline{) 24}$

7. $7 \overline{) 49}$ 8. $7 \overline{) 56}$ 9. $8 \overline{) 56}$ 10. $6 \overline{) 330}$ 11. $2 \overline{) 12}$ 12. $3 \overline{) 24}$

G. Add across and down to get the sums given.

1.

				2,133
426	237		460	1,568
		382	482	2,609
805		186		2,407
848	232		450	1,990
3,057	1,679	1,473	2,365	1,829

H. Find the product.

1. $\begin{array}{r} 325 \\ \times 1 \\ \hline \end{array}$

2. $\begin{array}{r} 325 \\ \times 2 \\ \hline \end{array}$

3. $\begin{array}{r} 325 \\ \times 3 \\ \hline \end{array}$

4. $\begin{array}{r} 325 \\ \times 4 \\ \hline \end{array}$

5. $\begin{array}{r} 325 \\ \times 5 \\ \hline \end{array}$

6. $\begin{array}{r} 325 \\ \times 6 \\ \hline \end{array}$

7. $\begin{array}{r} 325 \\ \times 7 \\ \hline \end{array}$

8. $\begin{array}{r} 325 \\ \times 8 \\ \hline \end{array}$

9. $\begin{array}{r} 325 \\ \times 9 \\ \hline \end{array}$

Solve by first adding the seconds, then the minutes, and finally, the hours.

$$\begin{array}{r} 21 \text{ hr. } 7 \text{ min. } 20 \text{ sec.} \\ \underline{3 \text{ hr. } 52 \text{ min. } 39 \text{ sec.}} \end{array}$$

$$\begin{array}{r} 10 \text{ hr. } 18 \text{ min. } 20 \text{ sec.} \\ \underline{10 \text{ hr. } 34 \text{ min. } 36 \text{ sec.}} \end{array}$$

$$\begin{array}{r} 18 \text{ hr. } 9 \text{ min. } 20 \text{ sec.} \\ \underline{18 \text{ hr. } 18 \text{ min. } 14 \text{ sec.}} \end{array}$$

Solve.

1. $27 + 16 + 53$
2. $529 + 692 + 792 + 892$
3. $4,379 \times 5$
4. 321 less than 829
5. 482 more than 691
6. The product of 25 and 6
7. Seven dimes plus 8 nickels plus 3 quarters
8. A twenty-dollar bill minus \$15.46
9. 9,375 times 7
10. $4 \times 4 + 4 - 4$
11. Thirteen plus five minus nine times seven
12. $3 + 3 + 3 + 3 - 3 + 3 - 3 - 3 + 3 + 3 + 3 - 3$

Answer these questions.

1. How many fours equal forty eight?
2. How many sixes equal forty eight?
3. How many eights equal forty eight?
4. How many twos equal forty eight?

I. Find the sum.

$$\begin{array}{r} 1. \quad 783 \\ + 659 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 780 \\ + 951 \\ \hline \end{array}$$

J. Find the difference. Check.

$$\begin{array}{r} 1. \quad \$78.90 \\ - 23.17 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad \$35.51 \\ - 19.4 \\ \hline \end{array}$$

K. Find the product.

$$\begin{array}{r} 1. \quad 5,846 \\ \times 9 \\ \hline \end{array}$$

L. Find the quotients. Label the parts of a division problem for the first two.

$$1. \quad 9 \overline{) 27}$$

$$2. \quad 5 \overline{) 45}$$

$$3. \quad 3 \overline{) 21}$$

$$4. \quad 6 \overline{) 18}$$

Find the sums horizontally. Don't recopy each problem. Try to work it in your head and write down only the answer.

1. $32 + 10 + 20 + 30 + 40$

2. $84 + 11 + 21 + 31 + 41$

3. $55 + 50 + 60 + 70 + 80$

4. $15 + 51 + 61 + 71 + 81$

On your paper, label the parts of a division problem.

$$\begin{array}{r} \underline{\hspace{2cm}} \hspace{2cm} \end{array} \quad \begin{array}{r} 9 \\ 3 \overline{) 27} \\ \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} \end{array} \quad \begin{array}{r} \underline{\hspace{2cm}} \\ \underline{\hspace{2cm}} \end{array}$$

Test Score _____



Fourth Grade

Week 1 - Day 1

1.	3	1	6	2	3	5	5	1	6
2.		2	5	4	1	1	6	3	5
3.		8	9	0	2	3	7	5	2
4.	4	5	0	0	0	0	0	0	0
5.	6	9	2	6	9	2	6	9	2

6. 216,523,485

7. 84,685,212

8. 135,984,328

9. 354,005,430

10. 1,057,418

⑪	$\overset{2}{9},\overset{1}{7}85$	⑫	$\overset{1}{6},\overset{2}{9}\overset{2}{8}5$	⑬	$\overset{1}{2}7,\overset{1}{3}52$	⑭	$89,\overset{1}{3}21$
	4,632		1,197		95,787		65,297
	<u>+ 8,972</u>		<u>+ 3,059</u>		<u>+ 16,259</u>		<u>+ 23,859</u>
	23,389		11,241		139,398		178,477

⑮ 14

⑯ 24

⑰ 21

⑱ 49

⑲ 21

⑳ 30



Fourth Grade

Week 1 - Day 2

- 1. 5,003,002
- 2. 500,032
- 3. 5,320

- | | | |
|---|---|---|
| ④ 472 addend
+ 521 addend
993 sum | ⑤ $3\frac{1}{6}$ addend
541 addend
<u>+ 687 addend</u>
1,604 sum | ⑥ $\frac{1}{97}$ addend
25 addend
<u>+ 62 addend</u>
184 sum |
|---|---|---|

- | | | | |
|---------------------------------------|---------------------------------------|--|--|
| <u>2,548</u> ✓ | <u>1,832</u> ✓ | <u>12,195</u> ✓ | <u>23,867</u> ✓ |
| ⑦ 902
859
<u>+ 787</u>
2,548 | ⑧ 587
396
<u>+ 849</u>
1,832 | ⑨ 3,241
6,845
<u>+ 2,059</u>
12,195 | ⑩ 8,397
6,554
<u>+ 8,916</u>
23,867 |

- 11. 6
- 12. 13
- 13. 28
- 14. 13
- 15. 27
- 16. 11
- 17. 4
- 18. 11
- 19. 24
- 20. 15



Fourth grade

Week 1 - Day 3

1. \$0.01

2. \$0.05

3. \$0.10

4. \$0.25

5. \$0.50

6. \$1.00

7. $6(.01) = \$0.06$

8. $5(.05) = \$0.25$

9. $4(.10) = \$0.40$

10. $3(.25) = \$0.75$

11. $2(.50) = \$1.00$

12. $7(1.00) = \$7.00$

13. $7(0.05) + 2(.10) - 1(.25)$

$0.35 + 0.20 - 0.25 = \$0.30$

14. $11(0.01) + 5(0.05) - 1(0.10)$

$0.11 + 0.25 - 0.10 = \$0.26$

15. $3(0.25) - 2(.10) + 1(0.05)$

$0.75 - 0.20 + 0.05 = \$0.60$

16. $7(0.10) - 1(0.50) + 3(0.25)$

$0.70 - 0.50 + 0.75$

(17)	479	(18)	305	(19)	2,392	(20)	12,306
------	-----	------	-----	------	-------	------	--------

	652		687		6,875		87,552
--	-----	--	-----	--	-------	--	--------

	<u>+ 889</u>		<u>+ 491</u>		<u>+ 5,916</u>		<u>+ 97,621</u>
--	--------------	--	--------------	--	----------------	--	-----------------

	2,020		1,483		15,183		197,479
--	-------	--	-------	--	--------	--	---------



Fourth Grade

Week 1 - Day 4

$$\begin{array}{r} \textcircled{1} \quad 799 \text{ minuend} \\ -257 \text{ subtrahend} \\ \hline 542 \text{ difference} \end{array}$$

$$\begin{array}{r} \textcircled{2} \quad 876 \text{ minuend} \\ -423 \text{ subtrahend} \\ \hline 453 \text{ difference} \end{array}$$

$$\begin{array}{r} \textcircled{3} \quad 279 \\ -165 \\ \hline 114 \\ \hline 279 \checkmark \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 399 \\ -298 \\ \hline 101 \\ \hline 399 \checkmark \end{array}$$

$$\begin{array}{r} \textcircled{5} \quad 687 \\ -587 \\ \hline 100 \\ \hline 687 \checkmark \end{array}$$

$$\begin{array}{r} \textcircled{6} \quad 5,826 \\ -1,503 \\ \hline 4,323 \\ \hline 5,826 \checkmark \end{array}$$

$$\begin{array}{r} \textcircled{7} \quad \overset{6}{4} \overset{6}{7} \overset{6}{6} \\ -329 \\ \hline 147 \end{array}$$

$$\begin{array}{r} \textcircled{8} \quad \overset{8}{9} \overset{0}{0} \overset{3}{3} \\ -652 \\ \hline 251 \end{array}$$

$$\begin{array}{r} \textcircled{9} \quad \overset{3}{4} \overset{6}{4} \overset{6}{6} \\ -389 \\ \hline 27 \end{array}$$

$$\begin{array}{r} \textcircled{10} \quad 2,3\overset{0}{4} \overset{4}{4} \\ -2,308 \\ \hline 6 \end{array}$$

$$\begin{array}{r} \textcircled{11} \quad 4\overset{1}{6} \overset{6}{6} \overset{6}{6} \\ +328 \\ \hline 794 \end{array}$$

$$\begin{array}{r} \textcircled{12} \quad 1\overset{3}{4} \overset{4}{4} \overset{4}{4} \\ -89 \\ \hline 55 \end{array}$$

$$\begin{array}{r} \textcircled{13} \quad 2,3\overset{2}{2} \overset{9}{9} \overset{9}{9} \\ +1,462 \\ \hline 3,791 \end{array}$$

$$\begin{array}{r} \textcircled{14} \quad \overset{2}{3}, \overset{9}{0} \overset{1}{1} \overset{9}{9} \\ -2,871 \\ \hline 148 \end{array}$$

$$\begin{array}{r} \textcircled{15} \quad \overset{8}{9} \overset{1}{7} \overset{6}{3} \\ -284 \\ \hline 689 \end{array}$$

$$\begin{array}{r} \textcircled{16} \quad 654 \\ +298 \\ \hline 952 \end{array}$$

$$\begin{array}{r} \textcircled{17} \quad \overset{3}{1} \overset{4}{4} \overset{6}{6} \\ -87 \\ \hline 59 \end{array}$$

$$\begin{array}{r} \textcircled{18} \quad \overset{2}{3}, \overset{10}{4} \overset{15}{6} \overset{4}{4} \\ -2,895 \\ \hline 269 \end{array}$$



Fourth Grade

Week 1 - Day 5

- ① 76^4 factor ② 96^2 factor ③ 89^5 factor ④ 34 factor
 $\times 7$ factor $\times 4$ factor $\times 6$ factor $\times 3$ factor
532 product 384 product 534 product 102 product

- ⑤ 975^4 ⑥ 329^2 ⑦ 486^4 ⑧ 209^5
 $\times 6$ $\times 7$ $\times 5$ $\times 6$
5,850 2,303 2,430 1,254

- ⑨ 27^2 ⑩ 23^2 ⑪ 209^2 ⑫ 124^1
25 69 876 387
 $+ 89$ $+ 48$ $+ 315$ $+ 216$
181 140 1,400 727

- ⑬ 839^1 ⑭ 504^4 ⑮ $1,824^1$ ⑯ $3,062^5$
 $- 186$ $- 281$ $- 895$ $- 2,938$
53 223 729 124

- ⑰ 329^1 ⑱ $16,829^5$ ⑲ $6(0.01) + 14(0.10) + 26(0.25) =$
876 $- 14,852$.06 + 1.40 + 6.50 = $\$7.96$
 $+ 913$ 1,477
2,118 ⑳ 329
 $- 116$
213

A. Find the sums horizontally. (Do not rewrite. Solve in your head.)

$$1. \quad 75 + 25 + 63 = 163$$

$$2. \quad 38 + 42 + 15 = 95$$

$$3. \quad 44 + 53 + 9 = 106$$

$$4. \quad 14 + 19 + 21 = 54$$

B. Find the sum. Check.

$$1. \quad \begin{array}{r} 47 \\ + 95 \\ \hline 142 \end{array}$$

$$2. \quad \begin{array}{r} 63 \\ + 87 \\ \hline 150 \end{array}$$

$$3. \quad \begin{array}{r} 6,329 \\ + 4,814 \\ \hline 11,143 \end{array}$$

$$4. \quad \begin{array}{r} 3,972 \\ + 689 \\ \hline 4,661 \end{array}$$

C. Subtract and check each answer.

$$1. \quad \begin{array}{r} 432 \\ - 168 \\ \hline 264 \end{array}$$

$$2. \quad \begin{array}{r} 149 \\ - 87 \\ \hline 62 \end{array}$$

D. Find the difference.

$$1. \quad \begin{array}{r} \$30.25 \\ - 16.87 \\ \hline \$13.38 \end{array}$$

$$2. \quad \begin{array}{r} \$30.00 \\ - 11.53 \\ \hline \$18.47 \end{array}$$

E. Find the product.

$$1. \quad \begin{array}{r} 724 \\ \times 3 \\ \hline 2,172 \end{array}$$

$$2. \quad \begin{array}{r} 296 \\ \times 4 \\ \hline 1,184 \end{array}$$

$$3. \quad \begin{array}{r} 351 \\ \times 5 \\ \hline 1,755 \end{array}$$

$$4. \quad \begin{array}{r} 478 \\ \times 6 \\ \hline 2,868 \end{array}$$

F. Find the sum. Check.

$$\begin{array}{r} 1. \quad 478 \\ + 329 \\ \hline 807 \end{array}$$

$$\begin{array}{r} 2. \quad 250 \\ + 146 \\ \hline 396 \end{array}$$

$$\begin{array}{r} 3. \quad 6,873 \\ + 9,208 \\ \hline 16,081 \end{array}$$

Write "true" or "false."

- true 1. The minuend is the top number in a subtraction problem.
- false 2. In 7,286, two is in the thousands' place.
- true 3. The sum is the answer in an addition problem.
- true 4. The order of the addends may be switched without changing the sum.

G. Find the product.

$$\begin{array}{r} 1. \quad 4,598 \\ \times \quad 6 \\ \hline 27,588 \end{array}$$

$$\begin{array}{r} 2. \quad 3,742 \\ \times \quad 6 \\ \hline 22,452 \end{array}$$

$$\begin{array}{r} 3. \quad 1,764 \\ \times \quad 4 \\ \hline 7,056 \end{array}$$

$$\begin{array}{r} 4. \quad 6,012 \\ \times \quad 4 \\ \hline 24,048 \end{array}$$

Solve.

1. 392 is how much more than 329? 63
2. 548 is how much less than 987? 439

Solve these money problems, using the method we learned last week:

$$4 \text{ nickels} + 3 \text{ dimes} - 6 \text{ pennies}$$

$$4 (.05) + 3 (.10) - 6 (.01) =$$

$$.20 + .30 - .06 = \$0.44$$

- \$0.05 1. 8 nickels + 4 dimes - 3 quarters
- \$0.50 2. 4 dimes + 3 nickels - 5 pennies
- \$1.20 3. 6 quarters - 6 dimes + 6 nickels
- \$2.65 4. 9 dimes - 1 half dollar + 9 quarters

Solve.

- 1,376 1. $466 + 126 + 784$
- 294 2. $144 + 239 - 89$
- 658 3. $2,329 + 329 - 2,000$
- 99,999,999,999⁰ 4. $1,234,567,890 + 98,765,432,100$
- 55 5. $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10$
- 720 6. $1 \times 2 \times 3 \times 4 \times 5 \times 6$
- 129 7. $176 - 47$
- 1,581 8. Two thousand sixteen minus four hundred thirty five

Answer these questions.

- 12 1. How many fours equal forty eight?
- 30 2. How many dimes are in three dollars?
- 7 3. How many fives are in thirty five?
- 13 4. How many twos are in twenty six?

H. Find the product.

$$\begin{array}{r} 1. \quad 42 \\ \times \quad 6 \\ \hline 252 \end{array}$$

$$\begin{array}{r} 2. \quad 27 \\ \times \quad 5 \\ \hline 135 \end{array}$$

$$\begin{array}{r} 3. \quad 509 \\ \times \quad 4 \\ \hline 2,036 \end{array}$$

$$\begin{array}{r} 4. \quad 156 \\ \times \quad 3 \\ \hline 468 \end{array}$$

Solve.

1. 321 is how much more than 1? 320

2. 789 is how much less than 967? 178

3. 654 is how much more than 456? 198

4. 1,234 is how much less than 4,321? 3,087

Rewrite vertically. Solve and check.

1. $1,326 + 3,527 = 4,853$

2. $987 - 243 = 744$

3. $248 + 151 = 399$

4. $23,368 - 12,257 = 11,111$

I. Solve.

1.

				2,864
540	872	324	781	2,517
752	944	945	636	3,277
732	330	444	621	2,127
808	408	380	692	2,288
2,832	2,554	2,093	2,730	2,620

Rewrite and solve.

$$\underline{1,394} \quad 1. 325 + 286 + 729 + 54$$

$$\underline{21,257} \quad 2. \text{The sum of } 3,846; 983; 9,725; \text{ and } 6,703.$$

$$\underline{17,184} \quad 3. 5,728 \times 3$$

$$\underline{3,072} \quad 4. 768 \times 4$$

$$\underline{1,625} \quad 5. 325 \times 5$$

$$\underline{\$10.19} \quad 6. \$17.03 - \$6.84$$

$$\underline{1,179} \quad 7. 5,000 - 3,821$$

$$\underline{583,956} \quad 8. 97,326 \times 6$$

J. Find the sum. Check.

$$\begin{array}{r} 1. \quad 16,000 \\ + \quad 5,960 \\ \hline 21,960 \end{array}$$

$$\begin{array}{r} 2. \quad 27,096 \\ + \quad 18,496 \\ \hline 45,592 \end{array}$$

K. Find the difference.

$$\begin{array}{r} 1. \quad \$11.29 \\ - \quad 9.38 \\ \hline \$1.91 \end{array}$$

$$\begin{array}{r} 2. \quad \$163.95 \\ - \quad 87.98 \\ \hline \$75.97 \end{array}$$

Solve.

$$\underline{22} \quad 1. 111 \text{ is how much more than } 89?$$

$$\underline{30} \quad 2. 48 \text{ is how much less than } 78?$$

$$\underline{116} \quad 3. 279 \text{ is how much more than } 163?$$

$$\underline{109} \quad 4. 25 \text{ is how much less than } 134?$$

Test Score _____

A. Find the sum.

$$\begin{array}{r} 1. \quad 679 \\ + 891 \\ \hline 1,570 \end{array}$$

$$\begin{array}{r} 2. \quad 977 \\ + 343 \\ \hline 1,320 \end{array}$$

$$\begin{array}{r} 3. \quad 994 \\ + 201 \\ \hline 1,195 \end{array}$$

$$\begin{array}{r} 4. \quad 865 \\ + 394 \\ \hline 1,259 \end{array}$$

$$\begin{array}{r} 5. \quad 826 \\ + 978 \\ \hline 1,804 \end{array}$$

$$\begin{array}{r} 6. \quad 522 \\ + 547 \\ \hline 1,069 \end{array}$$

B. Find the difference. Check.

$$\begin{array}{r} 1. \quad 538 \\ - 256 \\ \hline 282 \end{array}$$

$$\begin{array}{r} 2. \quad 320 \\ - 189 \\ \hline 131 \end{array}$$

$$\begin{array}{r} 3. \quad 4,530 \\ - 3,762 \\ \hline 768 \end{array}$$

$$\begin{array}{r} 4. \quad 5,827 \\ - 2,087 \\ \hline 3,740 \end{array}$$

C. Find the product.

$$\begin{array}{r} 1. \quad 724 \\ \times 3 \\ \hline 2,172 \end{array}$$

$$\begin{array}{r} 2. \quad 296 \\ \times 8 \\ \hline 2,368 \end{array}$$

$$\begin{array}{r} 3. \quad 351 \\ \times 6 \\ \hline 2,106 \end{array}$$

$$\begin{array}{r} 4. \quad 478 \\ \times 9 \\ \hline 4,302 \end{array}$$

Solve by first adding the seconds, then the minutes, and finally, the hours.

$$\begin{array}{r} 23 \text{ hr. } 7 \text{ min. } 20 \text{ sec.} \\ 18 \text{ hr. } 45 \text{ min. } 32 \text{ sec.} \\ \hline 41 \text{ hr. } 52 \text{ min. } 52 \text{ sec.} \end{array}$$

$$\begin{array}{r} 14 \text{ hr. } 15 \text{ min. } 30 \text{ sec.} \\ 15 \text{ hr. } 24 \text{ min. } 16 \text{ sec.} \\ \hline 29 \text{ hr. } 39 \text{ min. } 46 \text{ sec.} \end{array}$$

$$\begin{array}{r} 8 \text{ hr. } 12 \text{ min. } 30 \text{ sec.} \\ 3 \text{ hr. } 18 \text{ min. } 24 \text{ sec.} \\ \hline 11 \text{ hr. } 30 \text{ min. } 54 \text{ sec.} \end{array}$$

D. Find the sum.

$$\begin{array}{r} 1. \quad 46 \\ + 78 \\ \hline 124 \end{array}$$

$$\begin{array}{r} 2. \quad 20 \\ + 92 \\ \hline 112 \end{array}$$

$$\begin{array}{r} 3. \quad 19 \\ + 63 \\ \hline 82 \end{array}$$

$$\begin{array}{r} 4. \quad 39 \\ + 40 \\ \hline 79 \end{array}$$

Find the sums horizontally. Don't recopy each problem. Try to work it in your head and write down only the answer.

$$1. \quad 34 + 60 + 40 + 70 + 80 \quad 284$$

$$2. \quad 88 + 40 + 60 + 30 + 20 \quad 238$$

$$3. \quad 84 + 70 + 60 + 90 + 70 \quad 374$$

$$4. \quad 98 + 70 + 30 + 10 + 40 \quad 248$$

$$5. \quad 34 + 61 + 41 + 71 + 81 \quad 288$$

$$6. \quad 88 + 41 + 61 + 31 + 21 \quad 242$$

E. Find the product.

$$\begin{array}{r} 1. \quad 846 \\ \times 7 \\ \hline 5,922 \end{array}$$

$$\begin{array}{r} 2. \quad 183 \\ \times 7 \\ \hline 1,281 \end{array}$$

$$\begin{array}{r} 3. \quad 199 \\ \times 8 \\ \hline 1,592 \end{array}$$

$$\begin{array}{r} 4. \quad 755 \\ \times 8 \\ \hline 6,040 \end{array}$$

$$\begin{array}{r} 5. \quad 821 \\ \times 8 \\ \hline 6,568 \end{array}$$

$$\begin{array}{r} 6. \quad 584 \\ \times 8 \\ \hline 4,672 \end{array}$$

Solve.

$$1. \quad 462 \text{ is how much more than } 341? \quad 121$$

$$2. \quad 654 \text{ is how much less than } 869? \quad 215$$

In this division problem, the **dividend** (27) is being divided by the **divisor** (3). The answer is called the **quotient** (9).

$$\begin{array}{r} 9 \text{ quotient} \\ \text{divisor } 3 \overline{) 27} \text{ dividend} \end{array}$$

F. Find the quotients. Label the parts of a division problem for the first two.

1. $\begin{array}{r} 6 \text{ quotient} \\ \text{divisor } 4 \overline{) 24} \text{ dividend} \end{array}$ 2. $4 \overline{) 36}$ 3. $5 \overline{) 25}$ 4. $8 \overline{) 24}$ 5. $6 \overline{) 36}$ 6. $6 \overline{) 24}$
7. $\begin{array}{r} 7 \text{ quotient} \\ \text{divisor } 7 \overline{) 49} \text{ dividend} \end{array}$ 8. $7 \overline{) 56}$ 9. $8 \overline{) 56}$ 10. $6 \overline{) 330}$ 11. $2 \overline{) 12}$ 12. $3 \overline{) 24}$

G. Add across and down to get the sums given.

1.

426	237	445	460	2,133
978	767	382	482	1,568
805	443	186	973	2,609
848	232	460	450	2,407
3,057	1,679	1,473	2,365	1,990
				1,829

H. Find the product.

1. $\begin{array}{r} 325 \\ \times 1 \\ \hline 325 \end{array}$ 2. $\begin{array}{r} 325 \\ \times 2 \\ \hline 650 \end{array}$ 3. $\begin{array}{r} 325 \\ \times 3 \\ \hline 975 \end{array}$
4. $\begin{array}{r} 325 \\ \times 4 \\ \hline 1,300 \end{array}$ 5. $\begin{array}{r} 325 \\ \times 5 \\ \hline 1,625 \end{array}$ 6. $\begin{array}{r} 325 \\ \times 6 \\ \hline 1,950 \end{array}$
7. $\begin{array}{r} 325 \\ \times 7 \\ \hline 2,275 \end{array}$ 8. $\begin{array}{r} 325 \\ \times 8 \\ \hline 2,600 \end{array}$ 9. $\begin{array}{r} 325 \\ \times 9 \\ \hline 2,925 \end{array}$

Solve by first adding the seconds, then the minutes, and finally, the hours.

$$\begin{array}{r} 21 \text{ hr. } 7 \text{ min. } 20 \text{ sec.} \\ 3 \text{ hr. } 52 \text{ min. } 39 \text{ sec.} \\ \hline 24 \text{ hr. } 59 \text{ min. } 59 \text{ sec.} \end{array}$$

$$\begin{array}{r} 10 \text{ hr. } 18 \text{ min. } 20 \text{ sec.} \\ 10 \text{ hr. } 34 \text{ min. } 36 \text{ sec.} \\ \hline 20 \text{ hr. } 52 \text{ min. } 56 \text{ sec.} \end{array}$$

$$\begin{array}{r} 18 \text{ hr. } 9 \text{ min. } 20 \text{ sec.} \\ 18 \text{ hr. } 18 \text{ min. } 14 \text{ sec.} \\ \hline 36 \text{ hr. } 27 \text{ min. } 34 \text{ sec.} \end{array}$$

Solve.

1. $27 + 16 + 53$ 96
2. $529 + 692 + 792 + 892$ 2,905
3. $4,379 \times 5$ 21,895
4. 321 less than 829 508
5. 482 more than 691 1,173
6. The product of 25 and 6 150
7. Seven dimes plus 8 nickels plus 3 quarters \$1.85
8. A twenty-dollar bill minus \$15.46 \$4.54
9. 9,375 times 7 65,625
10. $4 \times 4 + 4 - 4$ 16
11. Thirteen plus five minus nine times seven 63
12. $3 + 3 + 3 + 3 - 3 + 3 - 3 - 3 + 3 + 3 + 3 - 3$ 12

Answer these questions.

1. How many fours equal forty eight? 12
2. How many sixes equal forty eight? 8
3. How many eights equal forty eight? 6
4. How many twos equal forty eight? 24

I. Find the sum.

$$\begin{array}{r} 1. \quad 783 \\ + 659 \\ \hline 1,442 \end{array}$$

$$\begin{array}{r} 2. \quad 780 \\ + 951 \\ \hline 1,731 \end{array}$$

J. Find the difference. Check.

$$\begin{array}{r} 1. \quad \$78.90 \\ - 23.17 \\ \hline \$55.73 \end{array}$$

$$\begin{array}{r} 2. \quad \$35.51 \\ - 19.4 \\ \hline \$16.11 \end{array}$$

K. Find the product.

$$\begin{array}{r} 1. \quad 5,846 \\ \times \quad 9 \\ \hline 52,614 \end{array}$$

L. Find the quotients. Label the parts of a division problem for the first two.

$$1. \quad \begin{array}{r} 3 \\ 9 \overline{) 27} \end{array}$$

$$2. \quad \begin{array}{r} 9 \\ 5 \overline{) 45} \end{array}$$

$$3. \quad \begin{array}{r} 7 \\ 3 \overline{) 21} \end{array}$$

$$4. \quad \begin{array}{r} 3 \\ 6 \overline{) 18} \end{array}$$

Find the sums horizontally. Don't recopy each problem. Try to work it in your head and write down only the answer.

$$1. \quad 32 + 10 + 20 + 30 + 40 \quad 132$$

$$2. \quad 84 + 11 + 21 + 31 + 41 \quad 188$$

$$3. \quad 55 + 50 + 60 + 70 + 80 \quad 315$$

$$4. \quad 15 + 51 + 61 + 71 + 81 \quad 279$$

On your paper, label the parts of a division problem.

$$\begin{array}{r} \text{divisor} \quad \underline{\hspace{2cm}} \end{array} \quad \begin{array}{r} 9 \text{ quotient} \\ 3 \overline{) 27} \\ \text{dividend} \end{array} \quad \underline{\hspace{2cm}}$$

Test Score