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Foreword

Math Mammoth Grade 1 comprises a complete math curriculum for the first grade mathematics studies. The curriculum meets the Common Core standards.

The main areas of study for Math Mammoth Grade 1 are:

1. The concepts of addition and subtraction, strategies for addition and subtraction facts, and addition and subtraction word problems;
2. Developing understanding of place value for two-digit numbers;
3. Developing understanding and some basic strategies for two-digit addition and subtraction.

Additional topics we study are telling time (whole and half hours), geometric shapes, measurement, and counting coins.

This book, the 1-A worktext, covers addition, subtraction, and word problems (chapters 1 and 2), place value with two-digit numbers (chapter 3), and telling time (chapter 4). The book 1-B covers addition and subtraction facts, shapes, fractions, measuring, adding and subtracting two-digit numbers, graphs, and counting coins.

I heartily recommend that you read the full user guide in the following pages.

I wish you success in teaching math!

Maria Miller, the author

User Guide

Note: You can also find the information that follows online, at <https://www.mathmammoth.com/userguides/>.

The Common Core Standards documentation is available at:
<https://www.mathmammoth.com/preview/standards/MM-CCS-Grade1-2026.pdf>

Basic principles in using Math Mammoth Complete Curriculum

Math Mammoth is mastery-based, which means it concentrates on a few major topics at a time, in order to study them in depth. The two books (parts A and B) are like a “framework”, but you still have a lot of liberty in planning your child’s studies. You can even use it in a *spiral* manner, if you prefer. Simply have your student study in 2-3 chapters simultaneously. In first grade, I suggest studying chapters 1-3 in order, but you can be flexible with the other chapters and schedule them earlier or later.

Math Mammoth is not a scripted curriculum. In other words, it is not spelling out in exact detail what the teacher is to do or say. Instead, Math Mammoth gives you, the teacher, various tools for teaching:

- **The two student worktexts** (parts A and B) contain all the lesson material and exercises. They include the explanations of the concepts (the teaching part) in blue boxes. The worktexts also contain some advice for the teacher in the “Introduction” of each chapter.

The teacher can read the teaching part of each lesson before the lesson, or read and study it together with the student in the lesson, or let the student read and study on his own. If you are a classroom teacher, you can copy the examples from the “blue teaching boxes” to the board and go through them on the board.

- There are hundreds of **videos** matched to the curriculum available at <https://www.mathmammoth.com/videos/>. There isn’t a video for every lesson, but there are dozens of videos for each grade level. You can simply have the author teach your child or student!
- Don’t automatically assign all the exercises. Use your judgment, trying to assign just enough for your student’s needs. You can use the skipped exercises later for review. For most students, I recommend to start out by assigning about half of the available exercises. Adjust as necessary.
- Each chapter introduction contains a **list of links to various free online games** and activities. These games can be used to supplement the math lessons, for learning math facts, or just for some fun.
- The student books contain some **mixed review lessons**, and the curriculum also provides you with additional **cumulative review lessons**.
- There is a **chapter test** for each chapter of the curriculum, and a comprehensive end-of-year test.
- The **worksheet maker** allows you to make additional worksheets for most calculation-type topics in the curriculum. This is a single html file. You will need Internet access to be able to use it.
- You can use the free online exercises at <https://www.mathmammoth.com/practice/>. This is an expanding section of the site, so check often to see what new topics we are adding to it!
- Some grade levels have **cut-outs** to make fraction manipulatives or geometric solids.
- The answer key is included when you purchase the digital version (the download). If you purchase the printed version, the answer key is available as a separate book.

Sample worksheet from
<https://www.mathmammoth.com>

How to get started

Have ready the first lesson from the student worktext. Go over the first teaching part (within the blue boxes) together with your child. Go through a few of the first exercises together, and then assign some problems for your child to do on their own.

Repeat this if the lesson has other blue teaching boxes. Naturally, you can also use the videos at <https://www.mathmammoth.com/videos/>

Many students can eventually study the lessons completely on their own — the curriculum becomes self-teaching. However, students definitely vary in how much they need someone to be there to actually teach them.

Pacing the curriculum

Each chapter introduction contains a suggested pacing guide for that chapter. You will see a summary on the right. (This summary does not include the optional lessons, nor time for the optional tests.)

Most lessons are 2 pages long, intended for one day. Some lessons are 3 pages, again intended for one day but you can take two if needed. There are also a few optional lessons, not included in the tables on the right.

It can also be helpful to calculate a general guideline as to how many pages per week the student should cover in order to go through the curriculum in one school year.

The table below lists how many pages there are for the student to finish in this particular grade level, and gives you a guideline for how many pages per day to finish, assuming a 170-day (34-week) school year. The page count in the table below *includes* the optional lessons.

Example:

Grade level	School days	Days for tests and reviews	Lesson pages	Days for the student book	Pages to study per day	Pages to study per week
1-A	83	8	149	75	2	10
1-B	87	10	151	77	2	10
Grade 1 total	170	18	300	152	2	10

The table below is for you to fill in. Allow several days for tests and additional review before tests — I suggest at least twice the number of chapters in the curriculum. Then, to get a count of “pages to study per day”, **divide the number of lesson pages by the number of days for the student book**. Lastly, multiply this number by 5 to get the approximate page count to cover in a week.

Grade level	Number of school days	Days for tests and reviews	Lesson pages	Days for the student book	Pages to study per day	Pages to study per week
1-A			149			
1-B			151			
Grade 1 total			300			

Worktext 1-A	
Chapter 0	6 days
Chapter 1	22 days
Chapter 2	19 days
Chapter 3	17 days
Chapter 4	6 days
TOTAL	70 days

Worktext 1-B	
Chapter 5	15 days
Chapter 6	18 days
Chapter 7	7 days
Chapter 8	24 days
Chapter 9	5 days
Chapter 10	9 days
TOTAL	72 days

Sample worksheet from <https://www.mathmammoth.com>

Now, something important. Whenever the curriculum has lots of similar practice problems (a large set of problems), feel free to **only assign 1/2 or 2/3 of those problems**. If your student gets it with less amount of exercises, then that is perfect! If not, you can always assign the rest of the problems for some other day. In fact, you could even use these unassigned problems the next week or next month for some additional review.

In general, 1st-2nd graders might spend 25-40 minutes a day on math. Third-fourth graders might spend 30-60 minutes a day. Fifth-sixth graders might spend 45-75 minutes a day. If your student finds math enjoyable, they can of course spend more time with it! However, it is not good to drag out the lessons on a regular basis, because that can then affect the student's attitude towards math.

Working space, the usage of additional paper, and mental math

The curriculum generally includes working space directly on the page for students to work out the problems. However, feel free to let your students use extra paper when necessary. They can use it, not only for the “long” algorithms (where you line up numbers to add, subtract, multiply, and divide), but also to draw diagrams and pictures to help organize their thoughts. Some students won't need the additional space (and may resist the thought of extra paper), while some will benefit from it. Use your discretion.

Some exercises don't have any working space, but just an empty line for the answer (e.g. $200 + \underline{\quad} = 1,000$). Typically, I have intended that such exercises be done using *mental math*.

However, there are some students who struggle with mental math (often this is because of not having studied and used it in the past). As always, the teacher has the final say (not me!) as to how to approach the exercises and how to use the curriculum. We do want to prevent extreme frustration (to the point of tears). The goal is always to provide SOME challenge, but not too much, and to let students experience success enough so that they can continue to enjoy learning math.

Students struggling with mental math will probably benefit from studying the basic principles of mental calculations from the earlier levels of Math Mammoth curriculum. To do so, look for lessons that list mental math strategies. They are taught in the chapters about addition, subtraction, place value, multiplication, and division. My article at https://www.mathmammoth.com/lessons/practical_tips_mental_math also gives you a summary of some of those principles.

Using tests

For each chapter, there is a **chapter test**, which can be administered right after studying the chapter. **The tests are optional**. Some families might prefer not to give tests at all. The main reason for the tests is for diagnostic purposes, and for record keeping. These tests are not aligned or matched to any standards.

In the digital version of the curriculum, the tests are provided as PDF files. You can edit them (such as to change the numbers in them) to provide a different test using PDF apps that have editing capabilities. You can even use the annotation tools (such as text boxes) available in most PDF apps. Remember to save the edited file under a different file name, or you will lose the original.

The end-of-year test is best administered as a diagnostic or assessment test, which will tell you how well the student remembers and has mastered the mathematics content of the entire grade level.

Using cumulative reviews and the worksheet maker

The student books contain mixed review lessons which review concepts from earlier chapters. The curriculum also comes with additional cumulative review lessons, which are just like the mixed review lessons in the student books, with a mix of problems covering various topics. These are found in their own folder in the digital version, **Sample Worksheets from Cumulative Reviews** book in the print version.

<https://www.mathmammoth.com>

The cumulative reviews are optional; use them as needed. They are named indicating which chapters of the main curriculum the problems in the review come from. For example, “Cumulative Review, Chapter 4” includes problems that cover topics from chapters 1-4.

Both the mixed and cumulative reviews allow you to spot areas that the student has not grasped well or has forgotten. When you find such a topic or concept, you have several options:

1. Check if the worksheet maker lets you make worksheets for that topic.
2. Check for any online games and resources in the Introduction part of the particular chapter in which this topic or concept was taught.
3. If you have the digital version, you could reprint the lesson from the student worktext, and have the student restudy that.
4. Perhaps you only assigned 1/2 or 2/3 of the exercise sets in the student book at first, and can now use the remaining exercises.
5. Check if our online practice area at <https://www.mathmammoth.com/practice/> has something for that topic.
6. Khan Academy has free online exercises, articles, and videos for most any math topic imaginable.

Concerning challenging word problems and puzzles

While this is not absolutely necessary, I heartily recommend supplementing Math Mammoth with challenging word problems and puzzles. You could do that once a month, for example, or more often if the student enjoys it.

The goal of challenging story problems and puzzles is to **develop the student’s logical and abstract thinking and mental discipline**. I recommend starting these in fourth grade, at the latest. Then, students are able to read the problems on their own and have developed mathematical knowledge in many different areas. Of course I am not discouraging students from doing such in earlier grades, either.

Math Mammoth curriculum contains lots of word problems, and they are usually multi-step problems. Several of the lessons utilize a bar model for solving problems. Even so, the problems I have created are usually tied to a specific concept or concepts. I feel students can benefit from solving problems and puzzles that require them to think “out of the box” or are just different from the ones I have written.

I recommend you use the free Math Stars problem-solving newsletters as one of the main resources for puzzles and challenging problems:

Math Stars Problem Solving Newsletter (grades 1-8)

<https://www.homeschoolmath.net/teaching/math-stars.php>

I have also compiled a list of other resources for problem solving practice, which you can access at this link:

<https://l.mathmammoth.com/challengingproblems>

Another idea: you can find puzzles online by searching for “brain puzzles for kids,” “logic puzzles for kids” or “brain teasers for kids.”

Frequently asked questions and contacting us

If you have more questions, please first check the FAQ at <https://www.mathmammoth.com/faq-lightblue>

If the FAQ does not cover your question, you can then contact us using the contact form at the Math

Mammoth.com website.

Sample worksheet from

<https://www.mathmammoth.com>

Chapter 0: Kindergarten Math Review

Introduction

This chapter is optional. You can use it to check that your child/student has mastered the important concepts of kindergarten math. The lessons do not review every concept from kindergarten math, but they do cover the ones I have deemed important:

- writing the numerals from 0 to 20
- reciting the counting sequence up to 100
- counting up to 20 individual items
- comparing numbers between 1 and 10
- the concepts of addition and subtraction; representing addition and subtraction with drawings
- understanding that a number can be decomposed into pairs in more than one way (e.g. $6 = 3 + 3$ but also, $6 = 2 + 4$)
- solving very simple addition and subtraction word problems (within 0-10)
- correctly naming basic shapes

We will practice several of these still in first grade, but the skills that are essential before going on to the other chapters in Grade 1 are being able to correctly count up to 20 items, being able to write the numerals from 0 to 20, and the basic concepts of addition and subtraction.

Please note: decomposing the numbers from 11-19 as sums of “10 + some number” will also be covered in detail later in grade 1. The reason it is introduced in kindergarten is to *prepare* children to learn place value. Before going on to chapter 1 of Math Mammoth Grade 1, it is essential is that the child is able to recite the counting sequence at least up to 20, and to write those numerals. It is not essential for the child to understand that 18 is $10 + 8$; that will be covered in chapter 3.

Pacing Suggestion for Chapter 0

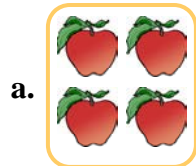
The Lessons in Chapter 0	page	span	suggested pacing	your pacing
Counting and Writing Numbers	12	2 pages	1 day	
Teen Numbers and Comparing	14	2 pages	1 day	
Two Groups and a Total	16	2 pages	1 day	
Addition	18	2 pages	1 day	
Subtraction as “Taking Away”	20	2 pages	1 day	
Shapes and Positions	22	2 pages	1 day	
TOTALS		12 pages	6 days	

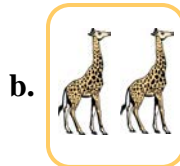
Counting and Writing Numbers

1. **To the teacher:** This exercise is to be done orally.

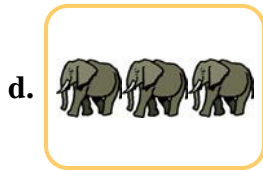
- a. Ask the student to count from 40 to 60.
- b. Ask the student to count from 87 to 100.
- c. Ask the student to count from 10 to 100 by tens.

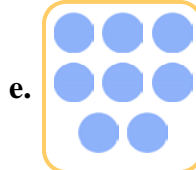
2. Count and write the number.

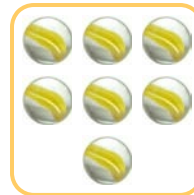


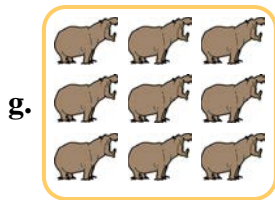
















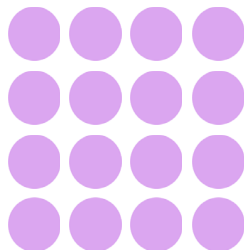
3. Count and write the number.



a. _____



b. _____



d. _____

4. Group (draw a large circle around) the given number of items.



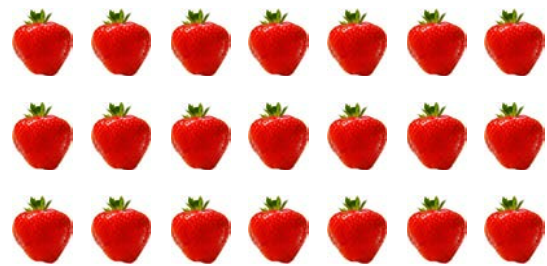
a. Make a group of eleven marbles.



b. Make a group of sixteen chicks.



c. Make a group of seventeen stars.



d. Make a group of nineteen strawberries.

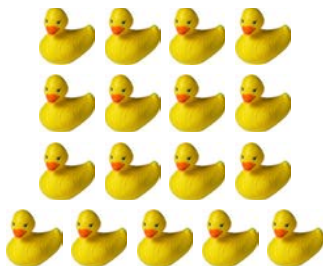
5. Count and write the number.



a. _____



b. _____



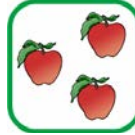











d. _____



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Basic Addition

1. In the second box, draw enough things to show the second number. Then add.

<p>a.  </p> <p>$2 + 1 = \underline{\quad}$</p>	<p>b.  </p> <p>$3 + 2 = \underline{\quad}$</p>	<p>c.  </p> <p>$1 + 2 = \underline{\quad}$</p>
<p>d.  </p> <p>$4 + 1 = \underline{\quad}$</p>	<p>e.  </p> <p>$2 + 3 = \underline{\quad}$</p>	<p>f.  </p> <p>$0 + 4 = \underline{\quad}$</p>

2. Add. Compare the two additions in each box. What do you notice?
(You can draw marbles to help.)

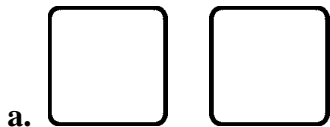
<p></p> <p>a. $2 + 3 = \underline{\quad}$</p> <p></p> <p>$3 + 2 = \underline{\quad}$</p>	<p>b. $1 + 2 = \underline{\quad}$</p> <p>$2 + 1 = \underline{\quad}$</p>	<p>c. $3 + 1 = \underline{\quad}$</p> <p>$1 + 3 = \underline{\quad}$</p>
<p>d. $1 + 4 = \underline{\quad}$</p> <p>$4 + 1 = \underline{\quad}$</p>	<p>e. $0 + 2 = \underline{\quad}$</p> <p>$2 + 0 = \underline{\quad}$</p>	<p>f. $5 + 0 = \underline{\quad}$</p> <p>$0 + 5 = \underline{\quad}$</p>

3. Solve. You can draw or act out the story to help you.

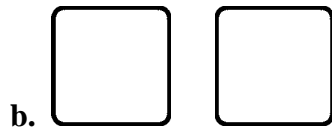
a. Joanna picked four flowers on the yard. Then she found one more and picked that one too. How many flowers does she have now?

b. Eric was playing with one toy car. Then his brother gave him four more. How many cars does he have now?

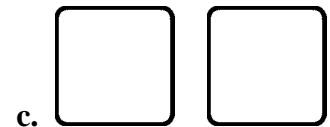
4. Draw dots in each box for the numbers. Then add.



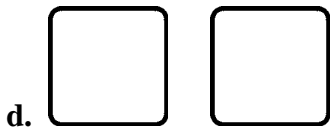
$$2 + 2 = \underline{\quad}$$



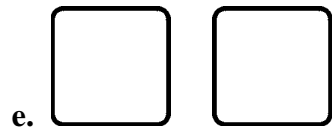
$$1 + 4 = \underline{\quad}$$



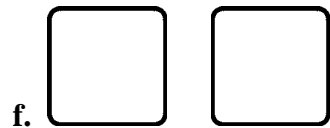
$$0 + 5 = \underline{\quad}$$



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



$$2 + 3 = \underline{\quad}$$



$$5 + 2 = \underline{\quad}$$

5. Add. If you want to, you can draw circles or sticks to help you.

a. $1 + 2 = \underline{\quad}$

b. $3 + 0 = \underline{\quad}$

c. $2 + 2 = \underline{\quad}$

d. $2 + 3 = \underline{\quad}$

e. $1 + 4 = \underline{\quad}$

f. $0 + 5 = \underline{\quad}$

g. $3 + 2 = \underline{\quad}$

h. $2 + 1 = \underline{\quad}$

i. $4 + 1 = \underline{\quad}$

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Basic Subtraction

From five bananas
we take away three.
(Cover three bananas.)



$$5 - 3 = 2$$

There are two left.

Five minus three equals two.

1. Write a subtraction sentence to match each picture.



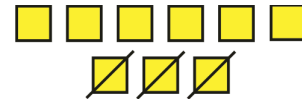
a. $\underline{5} - \underline{1} = \underline{\quad}$



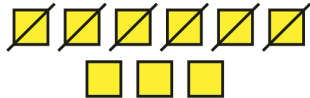
b. $\underline{\quad} - \underline{\quad} = \underline{\quad}$



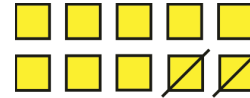
c. $\underline{\quad} - \underline{\quad} = \underline{\quad}$



d. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

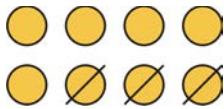


e. $\underline{\quad} - \underline{\quad} = \underline{\quad}$



f. $\underline{\quad} - \underline{\quad} = \underline{\quad}$

2. Solve. Draw dots and cross out some of them to match the subtraction problem.



a. $8 - 3 = \underline{\quad}$

b. $5 - 1 = \underline{\quad}$

c. $10 - 7 = \underline{\quad}$

e. $10 - 4 = \underline{\quad}$

f. $8 - 6 = \underline{\quad}$

3. Solve. You can draw dots to help you.

a. $7 - 2 = \underline{\quad}$	b. $10 - 1 = \underline{\quad}$	c. $9 - 7 = \underline{\quad}$
d. $6 - 3 = \underline{\quad}$	e. $7 - 3 = \underline{\quad}$	f. $10 - 4 = \underline{\quad}$

4. Solve the problems.

a. There were seven birds in a tree. Three flew away. How many are left?	b. Mom has four silver plates in the cupboard and five on the table. How many does she have in all?
c. Five girls were jumping rope. Then four more came. How many girls are now jumping rope?	d. Tina had six bunches of flowers. She sold six of them. How many were left?

5. Compare. Write $<$, $>$, or $=$.

a. $2 + 6$ 9

$3 + 6$ 9

$4 + 6$ 9

b. $4 - 2$ 5

$3 - 1$ 3

$4 - 4$ 0

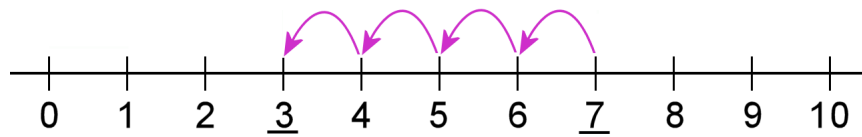
c. 10 $10 + 4$

10 $10 + 0$

10 $10 + 7$

Subtracting on the Number Line

Count 4 steps backwards from 7. You end up at 3.

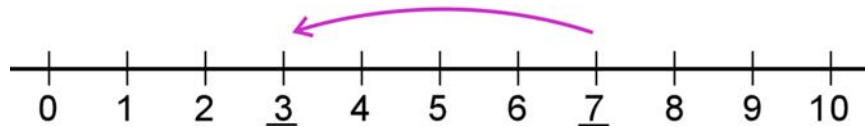


$$7 - 4 = 3$$

“Seven” “Six, five, four, three.”

Start. Count down FOUR steps.

You can also use a single arrow:



1. Draw a single arrow or several little steps to illustrate each subtraction, and solve.

a. $7 - 2 =$ _____

b. $8 - 4 =$ _____

c. $6 - 5 =$ _____

d. $9 - 3 =$ _____

e. $10 - 3 =$ _____

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The “Teen” Numbers

The names of the numbers between 10 and 20 are:

$1 \text{ ten } 1 = 11 = \text{eleven}$

$1 \text{ ten } 6 = 16 = \text{sixteen}$

$1 \text{ ten } 2 = 12 = \text{twelve}$

$1 \text{ ten } 7 = 17 = \text{seventeen}$

$1 \text{ ten } 3 = 13 = \text{thirteen}$

$1 \text{ ten } 8 = 18 = \text{eighteen}$

$1 \text{ ten } 4 = 14 = \text{fourteen}$

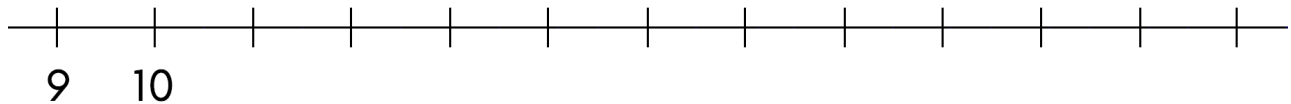
$1 \text{ ten } 9 = 19 = \text{nineteen}$

$1 \text{ ten } 5 = 15 = \text{fifteen}$

$2 \text{ tens } = 20 = \text{twenty}$

The word “teen” actually comes from “ten”. So, seventeen is actually “seven-ten”, or one ten and seven.

1. Write the numbers on this number line under the tick marks. Say the numbers aloud.



2. Make these numbers with the 100-bead abacus and **name** them (orally).

Lastly, write them with numerals.



a. 1 ten 2 ones

d. 5 tens

b. 1 ten 7 ones

e. 1 ten 5 ones

c. 7 tens

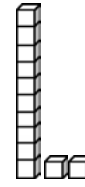
f. 1 ten 3 ones

3. Write as numbers.

a. eleven _____	b. sixteen _____	c. sixty _____
d. thirty _____	e. thirteen _____	f. twelve _____
g. twenty _____	h. fifty _____	i. fifteen _____

Ten blocks form a pillar, plus there are two little blocks.

In total, there are twelve blocks.



tens	ones
1	2
10 + 2	

4. Fill in the missing parts.

<p>a. <u>Eleven</u></p> <p><u>10</u> + <u>1</u></p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>			<p>b. _____</p> <p>_____ + _____</p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>		
<p>c. _____</p> <p>_____ + _____</p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>			<p>d. _____</p> <p>20 + <u>0</u></p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>		
<p>e. _____</p> <p>_____ + _____</p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>			<p>f. _____</p> <p>_____ + _____</p> <p>tens ones</p> <table border="1"> <tr> <td></td> <td></td> </tr> </table>		

5. Match the names and the numbers.

17

70

27

72

seventy-two

twenty-seven

seventeen

seventy

6. Fill in the missing parts.

a. $18 = 10 + \underline{\quad}$	b. $19 = \underline{\quad} + 9$	c. $21 = 20 + \underline{\quad}$
d. $81 = \underline{\quad} + 1$	e. $12 = \underline{\quad} + 2$	f. $\underline{\quad} = 10 + 5$

7. Count backwards from 20 to 10 (orally). Do it several times.

8. (optional) Choose one (or both) of the following games to practice the teen numbers some more.

Practice “Teens” board game

You need: A board game where you move a piece along a path. Number cards from 1 to 9 plus one number card with 10, from a standard deck of playing cards or UNO cards, etc.

Before the game: Place the card with 10 right-side-up in the middle. Place the deck next to it, face down.

Play: To start a turn, a player draws a card from the deck, placing it next to the 10-card. Then they have to *name* the number formed by the 10-card and the card they drew. For example, if 7 is drawn, the player has to say “seventeen”. If they name the number correctly, the player can move their piece the number of steps that was on the card they drew (not including the ten). Otherwise, follow the rules of the board game you are using.

Teens out!

You need: A standard deck of playing cards. Each face card (jack, queen, king) counts as a 10.

Before the game: Deal each person 7 cards. Place the remaining cards (the deck) face down in the middle.

Play: During your turn, take one card from the deck. Then, discard from your hand any two cards that when added together are more than 10 but less than 20. You *also* have to name the number when putting the cards down. For example, 10 and 5 make fifteen and can be discarded. Eight and five make thirteen, and can be discarded. Remember, any face card counts as a 10.

A player may discard several pairs of cards in one turn. If a player fails to name the number correctly when discarding, they have to keep the cards in their hand. The game ends when someone is able to discard all of their cards from their hand.

Variation: Instead of discarding the cards, the player places a “teen” pair of cards face up in front of them as a “book”. The game is played till all the cards are used from the deck. If a person does not have any cards left in their hand, then at their turn, they simply draw one card from the deck and the turn passes to the next person. In the end, whoever has the most “books” wins.

The 100-Chart, Part 1

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1. This is a 100-chart (a “hundred chart”).
 - a. The “sixties” row is colored, ending in 70. Find the “forties” row. Color it if you like.
 - b. Say aloud the numbers from 11 to 20. Color the “teen” numbers (from thirteen to nineteen).
 - c. What interesting things can you find in the chart?
 - d. Find the column that has the numbers that end in “5”, such as 5, 15, 25, and so on. Color them some color you like.
 - e. Find the column with the multiples of ten (ten, twenty, thirty, and so on). What is similar about those numbers?
 - f. Learn to skip-count by fives, starting with 5. It goes like this: 5, 10, 15, 20, ... You add five every time, or in other words, you list every 5th number.

Sample worksheet from

<https://www.mathworksheetsland.com> skip-count by fives?

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Whole and Half Hours 2

The minute hand on the clock is the thinner and longer hand.

It shows us the minutes — but the numbers 1 through 12 on the clock face do NOT tell us the minutes.

The green, smaller numbers are for the minute hand. They are not normally written on the clock face at all.

The time on the clock is 4 o'clock, or 4:00, which is four hours and zero minutes.



Find a clock that has a knob you can turn to move the hour and minute hands. Set the hour hand pointing to one, and the minute hand pointing straight “up”.

Move the hour hand from 1 to 2, and observe the minute hand!

Now move the hour hand from 2 to 3.
What does the minute hand do?

If you make the hour hand travel from 7 to 10,
how many “rounds” does the minute-hand make? _____

Make the minute hand travel backwards as well.



It is 1 o'clock
or 1:00
(1 hour and 0 minutes)

Use your clock. How much time passes when the hour hand travels from 1 to 2? _____ hour

At the same time, the minute hand travels **from 0 to 60 minutes**, or once around the clock.

1 HOUR = 60 MINUTES

1. The minute hand is added to the clocks. Tell or write the time in two ways: using the expression *o'clock* or using numbers.



a. _____

_____ : _____



b. _____

_____ : _____

Sample worksheet from
<https://www.mathmammoth.com>

1 HOUR = 60 MINUTES

HALF HOUR = 30 MINUTES

Use your practice clock again. Now let the hour hand travel from 2 to half-past 2 (only half an hour). The minute hand traveled from 0 minutes to 30 minutes.

Thirty minutes is half an hour.

We write the time as 2:30. It means 2 hours and 30 minutes -- or two and a half hours. That is why we can also say it has "half past two".



It is 2:30.

The numbers outside the clock face are for the minutes.

One hour = 60 minutes

Half hour = 30 minutes

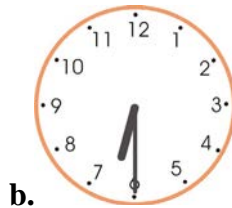
Now let the hour hand travel from half-past 2 to 3 — another half an hour.

The minute hand traveled from 30 minutes to _____ (or 0) minutes.

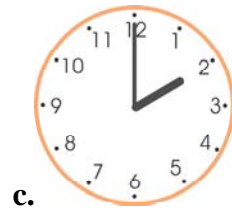
2. Tell or write the time in two ways: (1) using the expressions *o'clock* or *half past* and (2) with numbers.



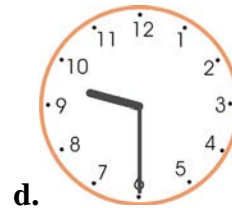
 ____ : ____



 ____ : ____



 ____ : ____



 ____ : ____



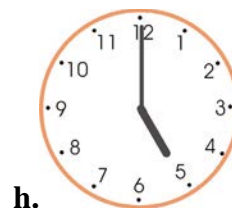
 ____ : ____



 ____ : ____



 ____ : ____



 ____ : ____

This is a digital clock. It shows time using numbers only.

This clock shows the time two-thirty, or half past 2.

In text, we normally write it with a colon (:), like this: 2:30.



3. Tell or write the time.

a.



b.



c.



d.



4. Match the clocks that show the same time.



5. Write the time a half-hour later. Use numbers.





Now:	3:00	6:30	9:00	2:30	11:30
Half hour later:					

Sample worksheet from <https://www.mathmammoth.com>





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Chapter 4 Review


1. Tell or write the time using the expressions *o'clock* or *half past*.

			
a. _____ _____	b. _____ _____	c. _____ _____	d. _____ _____

2. Write the time using numbers.

			
a. _____ : _____	b. _____ : _____	c. _____ : _____	d. _____ : _____

3. Match the digital clock to the correct analog clock.

				
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4. Write the time at a half-hour later. Use numbers.

Now:	a. 5:00	b. 10:30	c. 12:00	d. 1:30	e. 5:30
A half-hour later:					

5. Fill in either “AM” or “PM.”

a. Jack wakes up.	b. Jack plays in the afternoon. It is 3 _____.	c. Jack is sleeping. It is dark. It is 2 _____.
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