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Chapter 7: Addition & Subtraction within 0-100 and Graphs

Chapter 8: Coins

Foreword

Math Mammoth Grade 1-A and *Grade 1-B* worktexts comprise a complete maths curriculum for first grade mathematics studies.

This curriculum is essentially the same as the version of Math Mammoth Grade 1 sold in the United States (US version), only customized for Canadian audience in a few ways. The US version is aligned to the Common Core Standards, so it may not be properly aligned to the first grade standards in your province. However, you can probably find material for any missing topics in neighbouring grades. For example, let's say that your province mandates the study of multiplication tables in grade 4. That material is not found in Math Mammoth Grade 4, but it does appear in Math Mammoth Grade 3-A. So, you can simply re-order the material to solve most incompatibilities between different standards.

This International version for Canada of Math Mammoth differs from the US version in these aspects:

- The currency used in the money chapters in grades 1-3 is the Canadian dollar. (Additionally, the download version of this curriculum includes the chapter on money for European, South African, US, British, Australian and New Zealand currencies, in grades 1-3.)
- The curriculum teaches the metric measurement units. Imperial units, such as inches and pounds, are not used.
- The spelling conforms to British international standards.
- The paper size is Letter.

The four main areas of study for first grade are:

1. Learning the concepts of addition and subtraction, and strategies for remembering addition and subtraction facts (chapters 1-2 and chapter 4);

2. Developing understanding of whole number relationships and place value up to 100 (chapter 3 and chapter 7);

3. Developing the concept that measuring is a process of iterating basic units of length or some other measure (chapter 6); and

4. Reasoning about attributes of geometric shapes, such as the number of sides and the number of corners, and composing and decomposing geometric shapes (chapter 6).

Additional topics we study in the first grade are telling time to the half hour (chapter 5) and counting coins (chapter 8).

The portion of first grade included in this book, Part B, covers strategies for addition and subtraction facts (chapters 4), telling time and reading the calendar (chapter 5), shapes and measuring (chapter 6), adding and subtracting two-digit numbers and reading pictographs (chapter 7), and counting coins (chapter 8).

When you use these two books as your only or main mathematics curriculum, they are like a "framework," but you still have a lot of liberty in planning the child's studies. While the addition and subtraction topics are best studied in the order they are presented, feel free to go through the geometry, clock, and money sections in a different order. This might even be advisable if your child is "stuck" on some concept or is getting bored. After a bit of a break and a fresh approach, the chances are good that the student will be able to get past the concept that he or she got stuck on before.

The Math Mammoth program concentrates on a few major topics at a time, in order to study them in depth, while at the same time including revision problems from past topics. This is totally opposite to the continually spiralling step-by-step curricula, in which each lesson typically is about a different topic from the previous or next lesson.

This does not mean that your child will not need an occasional extra revision. Indeed, when each major topic is presented in its own chapter, this gives you more freedom to plan the course of study yourself to set appropriate times for revision. In fact, I encourage you to plan your mathematics school year in terms of the topics covered, instead of in terms of a certain range of pages from a book.

In order to realize any needed extra revision, the download version includes an html page called *Make_extra_worksheets_grade1.htm* that you can use to make additional worksheets for computation or for number charts. You can also reprint some previously studied pages. Chapter Four contains a lot of pages with problems that practise addition and subtraction facts, so you might choose to "save" some of these as an "extra worksheets file," which makes them available to use for later revision.

I wish you success in teaching maths!

Maria Miller, the author

Chapter 4: Addition and Subtraction Facts
Introduction

This chapter provides lots of practice for learning and memorizing the basic addition and subtraction facts with numbers from 0 to 10.

Since this chapter is repetitive, consider studying it simultaneously with some other section of the curriculum, such as telling time, shapes, measuring, or counting coins. For example, the child could study telling time and this chapter each day, or study the two different chapters on alternate days. This is not compulsory but just a suggestion to "mix things up" in a somewhat spiral fashion.

The series of lessons entitled *Addition and Subtraction Facts With...* aim to help the student to memorize the basic facts for numbers from 0 to 10. We approach it from the concept of "fact families," which makes the process logical and structured. These lessons have a lot of repetition and practice for both subtraction and addition facts.

Many children may not need all the practice problems provided, so don't assign all of them by default. Use your judgment, and only assign a certain portion, such as half of them, at first. The rest of them can then be used later as a review. If assigning only half of the exercises is not enough, adjust as necessary.

Alongside this book, you can also use maths games or flashcards to reinforce these facts. You will find a list of some free online games below.

While your child does not absolutely have to learn these facts by heart while studying this chapter, it is advisable to learn them fairly well. Mathematics builds upon previously learned concepts and facts, and learning addition and subtraction facts is essential for later study, such as when students add $24 + 2$ (in chapter 7 of this curriculum). However, if the child has not memorized these facts before the end of the chapter, don't worry. Go on with the curriculum, but keep practicing the facts with games, worksheets, drills, *etc.*, until the student has mastered them.

Besides practising the facts with the help of fact families, the student will also solve word problems, fill in number patterns, get used to a symbol that represents an unknown number, compare expressions (such as $5 - 2 < 2 + 5$), and subtract more than one number at a time.

The Lessons

Games for Addition and Subtraction Facts

10 Out (or *5 Out* or *6 Out etc.)*

You need: lots of number cards with numbers 1-10. (Regular playing cards with the face cards removed will work.)

Rules: Deal seven cards to each player. Place the rest in a pile in the middle, face down.

At the beginning of her turn, a player may optionally take the top card from the pile. Then the player may optionally ask the player on her right for one card (like in "Go Fish": "Do you have a seven?"), and the player on the right must give it to her if he has it. Then the player whose turn it is may discard either: (a) a single "10" card by itself or (b) any *two* cards in her hand that add up to 10.

The winner is the player who first discards all cards from his hand.

Variations:
* Deal more than seven cards.
* Deal fewer cards if there are a lot of players or if the players are very young.
* Also allow players to discard a set of *three* cards that add up to 10.
* Instead of 10, players discard cards that add up to 9, 8, 11, or some other number.
* Use the face cards for 11, 12, and 13.

Some Went Hiding

You need: An amount of small objects that is equal to the sum you are studying. For example, to study the sums with 12, you need 12 marbles, 12 blocks, or 12 of something else.

Rules: The first player shows the objects, then quickly hides SOME behind his back without showing how many. Then he shows the remaining objects to the next player to his right, who has to say how many "went hiding." If that player gives the right answer, then it becomes his turn to hide some and ask the next player to answer. If he gives the wrong answer, then he misses his turn, and the next player shows and hides the objects. This game appeals best to younger students.

Variation:
* Instead of getting a turn, the player may gain points or other rewards for the right answer.

Addition (or Subtraction) Challenge

You need: A standard deck of playing cards from which you remove the face cards, and perhaps also some of the other higher number cards such as tens, nines, and eights. Alternatively, a set of dominoes works well for students who do not yet know their numbers beyond 12.

Rules: At the beginning of each round, each player receives two cards face up and calculates their sum (adds). The player with the highest sum gets all the cards from the other players. Once there are no longer enough cards left in the pack to deal two cards to each player, players count their cards, and the player with the most cards wins.

If there is a tie, such as two players both having the sum of 11, those players get an additional two cards and use those to resolve the tie.

Variations:
* This game is easily adapted for subtraction and fractions.
* You can also use dominoes instead of playing cards.

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr1ch4

Scan me
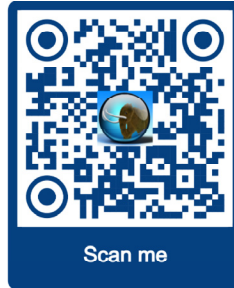
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Subtracting More Than One Number
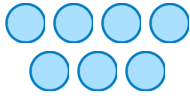
You have 7 circles. First you take away 1 circle, and then you take away 2 more circles. You will have 4 circles left. $7 - 1 - 2 = 4$.

$7 - 1 - 2 = ?$

1. Subtract twice, taking away circles. You can cover or cross out the circles to help.

a.

$8 - 2 - 3 =$ _____

$8 - 5 - 2 =$ _____

$8 - 1 - 3 =$ _____

b.

$9 - 3 - 1 =$ _____

$9 - 4 - 2 =$ _____

$9 - 2 - 5 =$ _____

c.
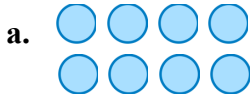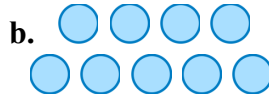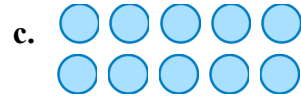
$10 - 5 - 3 =$ _____

$10 - 6 - 2 =$ _____

$10 - 1 - 4 =$ _____

2. Solve. You can draw pictures to help.

a. Mary had ten cookies. She gave two to her brother and two to her sister.
   How many does she have left?

b. Seven birds were in the tree. Three flew away. After a while, one more flew away.
   How many birds were left in the tree?

c. Eight cars were in the parking lot. Then three cars left. After that two more cars
   left. How many cars are there now?

d. Jack had $5. His mother gave him $1, and his father gave him $2.
   How many dollars does Jack have now?

You can subtract two numbers one at a time:	OR you can subtract their total:
$8 - 2 - 3$	$8 - 2 - 3$
$6 - 3 = 3$	$8 - 5 = 3$
First take away 2. That leaves 6. Then, from 6, subtract 3. That leaves 3.	Check how much you need to subtract or take away *in total*. You need to subtract 2 and 3, or a total of 5. So, subtract $8 - 5 = 3$.
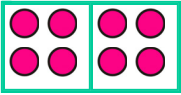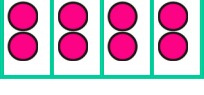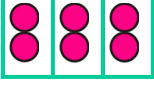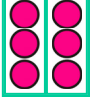
3. Subtract by either method.

a.	b.	c.
$7 - 2 - 3 =$ _____	$9 - 7 - 1 =$ _____	$7 - 5 - 1 =$ _____
$9 - 2 - 6 =$ _____	$6 - 2 - 2 =$ _____	$10 - 6 - 1 =$ _____

4. Solve. Compare the two problems and their results.

a.	b.	c.
$10 - 3 - 2 =$ _____	$7 - 3 - 3 =$ _____	$9 - 6 - 1 =$ _____
$10 - 3 - 3 =$ _____	$7 - 4 - 3 =$ _____	$8 - 6 - 1 =$ _____

5. Match the subtraction problems to the correct pictures.

a. $8 - 2 - 2 - 2 - 2 = 0$

b. $8 - 4 - 4 = 0$

c. $6 - 2 - 2 - 2 = 0$

d. $6 - 3 - 3 = 0$

Puzzle Corner   Here are some problems with four numbers!

$9 - 3 - 2 - 1 =$ _____ $10 - 1 - 2 - 1 =$ _____ $8 - 4 - 1 - 2 =$ _____

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Chapter 5: Time
Introduction

The fifth chapter covers reading an analogue clock to whole hours and to half hours, and some basics of time and the calendar.

In the first lesson we use an analogue clock that only has the hour hand. We omit the minute hand for a reason: this way the child can concentrate on the hour hand only, and learning to tell whole and half hours becomes much easier. We also practice telling what time it is one hour or a half-hour later than a given time.

The next lesson focuses on minutes. The aim of this lesson is to learn that one hour is 60 minutes, that a half-hour is 30 minutes, and how the phrases "o'clock" and "half past" relate to the hours and minutes. For example, the child is to learn that "half past eight" is written 8:30, and the "30" part is the number of minutes, so half an hour is just 30 minutes.

This lesson also includes a few exercises about reading the clock to five-minute intervals using a special clock that includes the numbers for the minute hand; however, these can be skipped if desired, because in second grade, the student will get a lot of practise reading the clock to the nearest five minutes.

I have included one lesson about time order. The topics in this lesson are hopefully already familiar to the student. The next lesson deals with morning and afternoon hours: AM and PM. The goal is for the student to understand that the clock starts at 12 midnight, goes through all the A.M. hours from 1 to 12 until it is 12 noon, and then goes through all of the P.M. hours from 1 to 12 until it is 12 midnight again.

We will also briefly look at the calendar and practise the names of the months.

Reading the clock is a skill that can and should be practised in everyday situations from now on so that children can learn by experience and not just by filling in pages in their maths book.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr1ch5

Whole and Half Hours

In this lesson, the clock only has one hand - the HOUR hand.
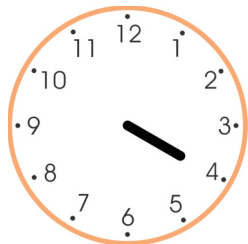
The hour hand points to four -
it is four hours, or "four o'clock".
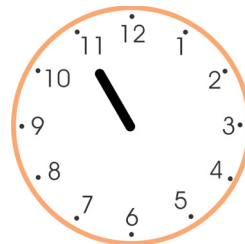
The hour hand points to eleven -
it is eleven hours, or "eleven o'clock".

The hour hand moves slowly around the clock
face: from 1 to 2 to 3, and so on.

When the hour hand moves from 1 to 2,
exactly one hour of time has passed.

The same is true when the hour hand moves
from 2 to 3. It takes the hour-hand one hour to
do that.

one hour passes

another hour passes
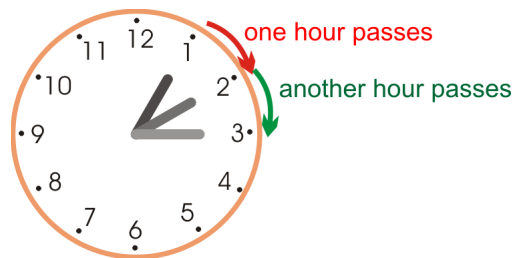
On this clock, the hour hand pointed to 5
when it was five o'clock.

Then it moved to **halfway** between 5 and 6.
We say it is **half past five**.
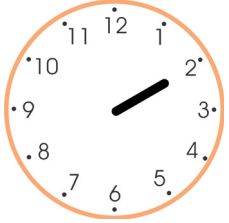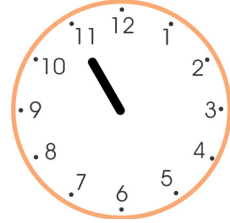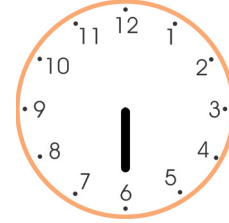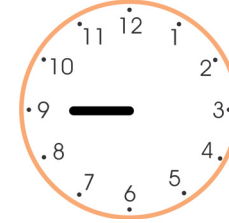
It takes the hour hand one-half hour to move from five
to halfway between five and six.

Here the hour hand has moved past eight o'clock, and is
halfway
between 8 and 9. We say it is half past eight.
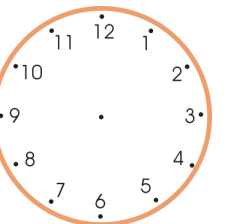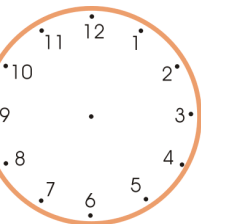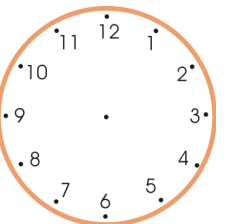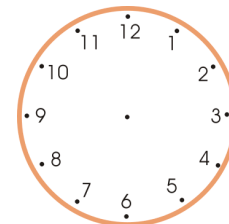
In half an hour it will be nine o'clock.
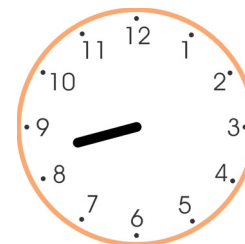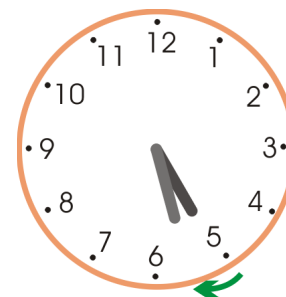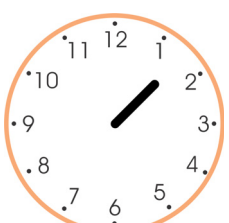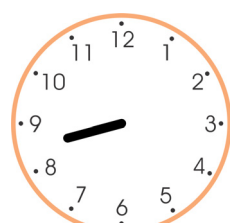
1. Write the time under each clock face.

a. _____ o'clock	**b.** _____ o'clock	**c.** _____ o'clock	**d.** _____ o'clock
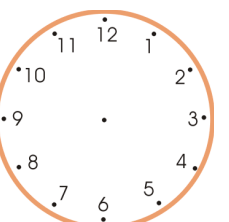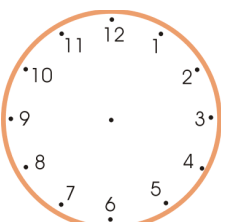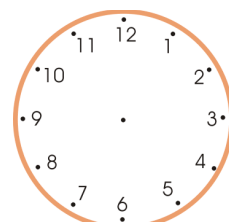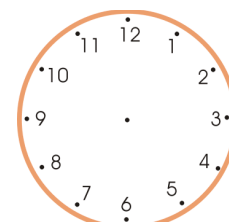
2. Draw the hour hand.

a. Five o'clock	**b.** Eight o'clock	**c.** Twelve o'clock	**d.** Seven o'clock
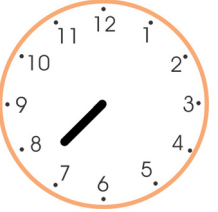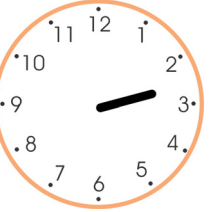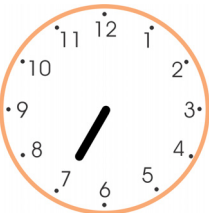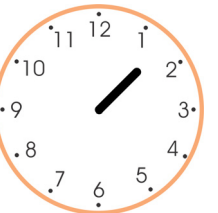
3. Write the time.

a. Half past _____	**b.** Half past _____	**c.** Half past _____	**d.** Half past _____
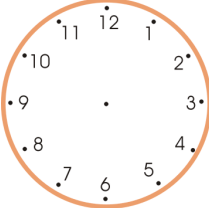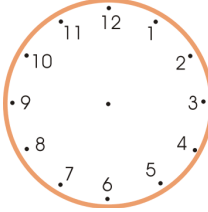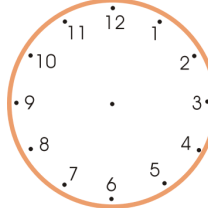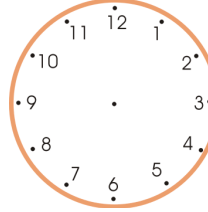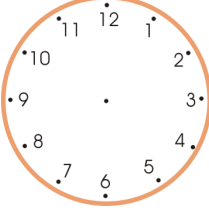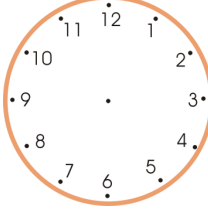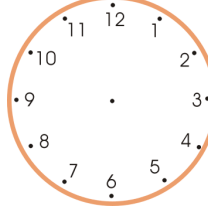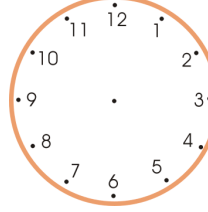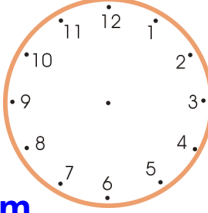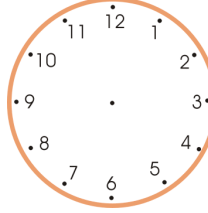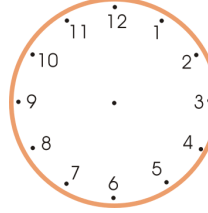
4. Draw the hour hand.

a. Half past six	**b.** Half past three	**c.** Half past two	**d.** Half past four
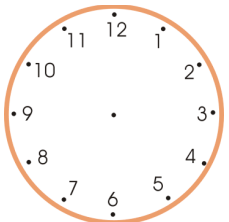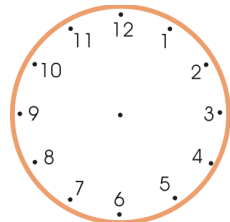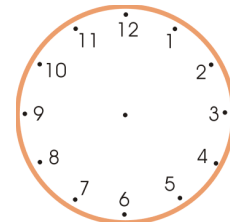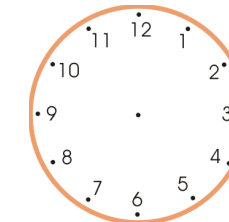
5. Write the time!

a. _____ _____	**b.** _____ _____	**c.** _____ _____	**d.** _____ _____
e. _____ _____	**f.** _____ _____	**g.** _____ _____	**h.** _____ _____
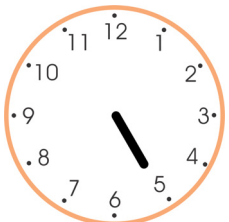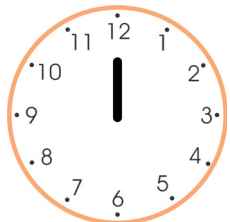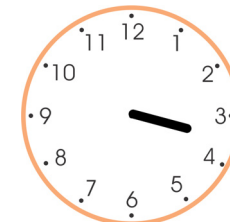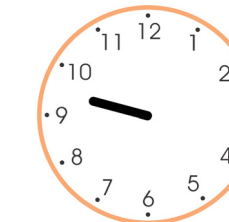
6. Draw an hour hand on each clock. In the second row, show the time a half-hour later. In the third row, show the time another half-hour later (than the clock in the second row).

Draw the hour hand.	**a.** Five o'clock	**b.** One o'clock	**c.** Half-past six	**d.** Half-past three
A half-hour later →				
Another half-hour later →				

17
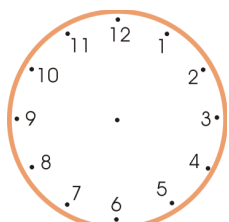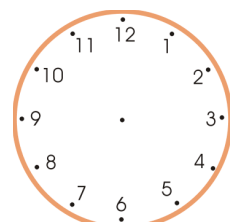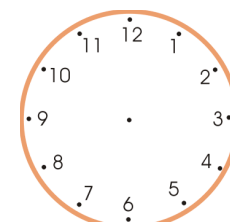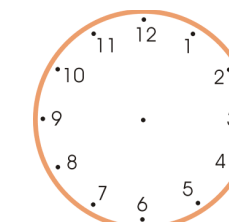
7. Draw the hour hand on each clock. Then write the time that the clock will show a half-hour later.

1/2 hour later →	**a.** Three o'clock	**b.** Eleven o'clock	**c.** Half-past five	**d.** Half-past eleven
	half past _____	half past _____	_____ o'clock	_____ o'clock

8. Write the time that the clock shows. Then write what the time will be an hour later.

An hour later →	**a.** _____ o'clock	**b.** _____ o'clock	**c.** Half past _____	**d.** Half past _____
	_____ _____	_____ _____	_____ _____	_____ _____

9. Draw the hour hand on the clock face. Write what it will be an hour later.

An hour later →	**a.** Three o'clock	**b.** Eleven o'clock	**c.** Half-past five	**d.** Half-past eleven
	_____ _____	_____ _____	_____ _____	_____ _____

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Chapter 6: Shapes and Measuring
Introduction

This sixth chapter of *Math Mammoth Grade 1* covers basic shapes and the concept of measuring. We will also study halves and quarters, centimetres, and three-dimensional shapes.

If you have the electronic version of this book (a PDF file), you will need to print the file at 100% instead of using "shrink to fit," "print to fit," or similar options. If you print using "shrink to fit," some exercises about measuring in centimetres will not come out right but will be "shrunk" compared to reality.

The goals of this section are:

- The student can identify common shapes, such as triangles, squares, rectangles, circles, and quadrilaterals.

- The student can draw lines with a ruler.

- The student understands that measuring length is a process of iterating (repeating) the unit of measure.

The lessons in this chapter can seem quite easy, but they are preparing the child for later studies and laying a proper foundation for geometric understanding. For example, dividing shapes into parts not only makes the child familiar with the properties of the original shape and of its parts, but also helps to build an understanding of part-whole relationships for the study of fractions.

For more practice, children can draw lines and shapes however they are able, divide shapes into other shapes, and draw patterns on grid paper. A tangram or a set of plastic shapes are also excellent aids.

Don't forget to also check out the videos at https://www.mathmammoth.com/videos/ .

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr1ch6int

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Drawing Basic Shapes

1. Use a ruler to join the dots <u>carefully</u> with straight lines. What shape do you get?
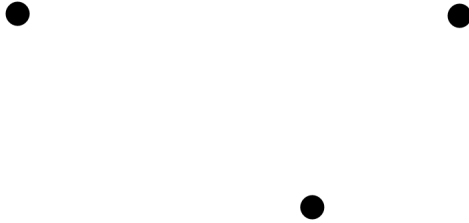
a. triangle / square / rectangle / other four-sided shape
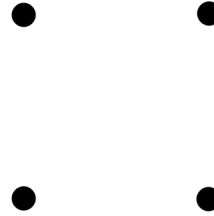
b. triangle / square / rectangle / other four-sided shape

c. triangle / square / rectangle / other four-sided shape

d. triangle / square / rectangle / other four-sided shape
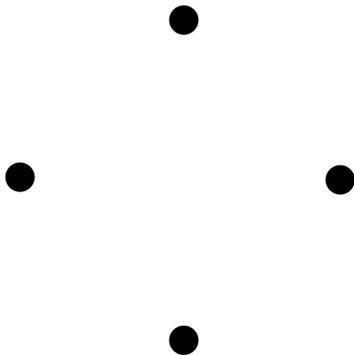
e. triangle / square / rectangle / other four-sided shape
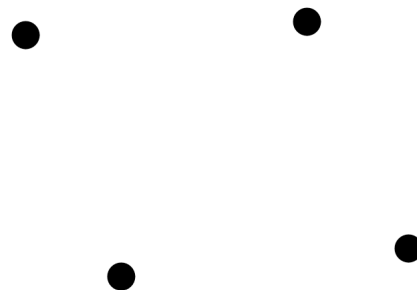
f. triangle / square / rectangle / other four-sided shape

2. **a.** Draw four dots anywhere in this space. Join the dots with lines. Use a ruler!

What shape did you get?
A square, a rectangle, or just a four-sided shape?
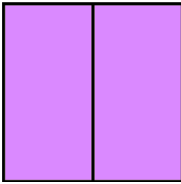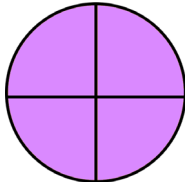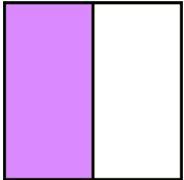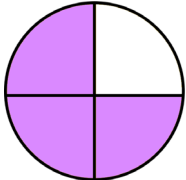
b. In this space try to draw four dots in this space so that you get a rectangle.
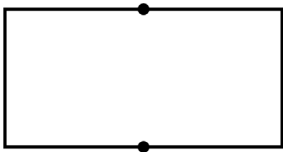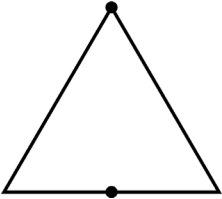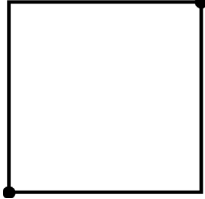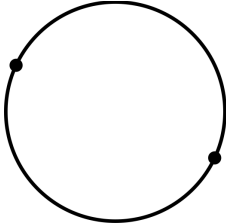
c. Draw a rectangle. This time, try using a book to make the corners square.

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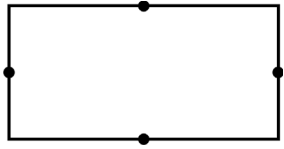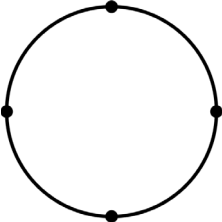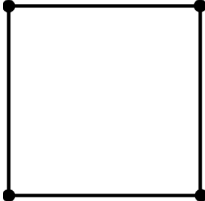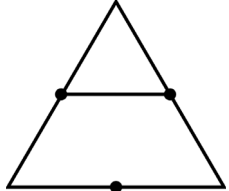
Halves and Quarters

This square is divided into two parts that are the same. The parts are *halves*. Each part is <u>one half</u>.	The circle is divided into four parts that are the same. The parts are called *fourths* or *quarters*. Each part is <u>one fourth</u> or <u>one quarter</u>.
Here, one-half of the square is coloured. The other half is white.	Here, three-fourths of the circle is coloured. One-fourth of it is white.
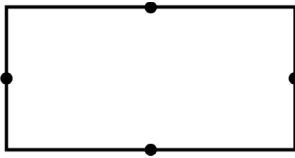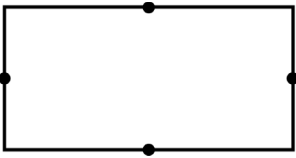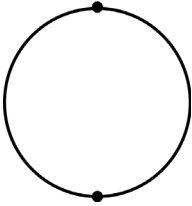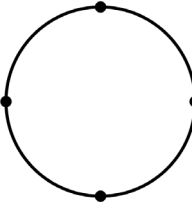
1. Divide these shapes into halves by drawing a straight line from dot to dot.
   Then colour them as the instructions say.
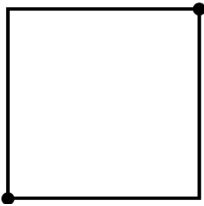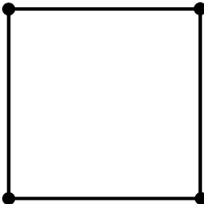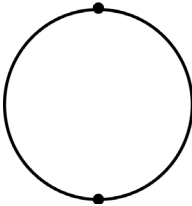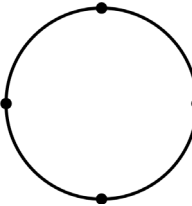
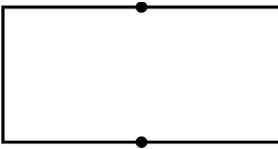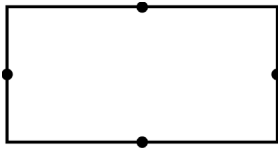| **a.** Colour one half.	**b.** Colour two halves.	**c.** Colour one half.	**d.** Colour both halves, but in different colours.
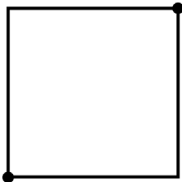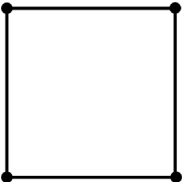
2. Divide these shapes into fourths by drawing two straight lines from dot to dot.
   Then colour them in as the instructions say.

a. Colour one fourth.	**b.** Colour three fourths.	**c.** Colour two fourths.	**d.** Colour four fourths = the WHOLE triangle.

3. Colour in. Then compare.

a.

Colour one-fourth of the rectangle.

Colour one-half of the rectangle.

Which one is a bigger piece, one-half or one-fourth?

b.

Colour one-half of the circle.

Colour one-quarter of the circle.

c.

Colour one-half of the square.

Colour two quarters of the square.

Which one is more, one half or two quarters?

d.

Colour one-half of the circle.

Colour two quarters of the circle.

e.

Colour one-half of the square.

Colour three-fourths of the square.

Which one is more, one half or three fourths?

f.

Colour one-half of this shape.

Colour three-fourths of this shape.

27

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Measuring Lines in Centimetres
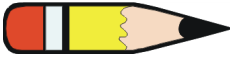
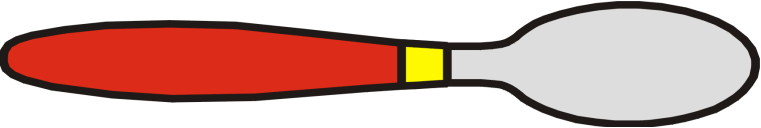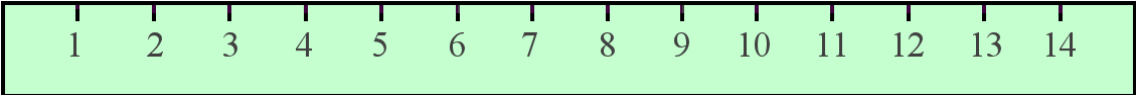You can find out how long things are in *centimetres*.

This line is 1 centimetre long: ⊢—⊣
A centimetre is written in its short form as "cm."
This pencil is 6 cm long.

1 2 3 4 5 6
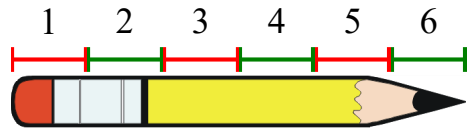
1. How many centimetres long are these things?

a. _____ cm

b. _____ cm

c. _____ cm

d. _____ cm

1 2 3 4 5 6 7 8 9 10 11 12 13 14

e. _____ cm

2. Measure the lines with a ruler. (If you don't have one, cut out the ruler at the bottom of the page.)

☐ cm

☐ cm

☐ cm

☐ cm

☐ cm

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
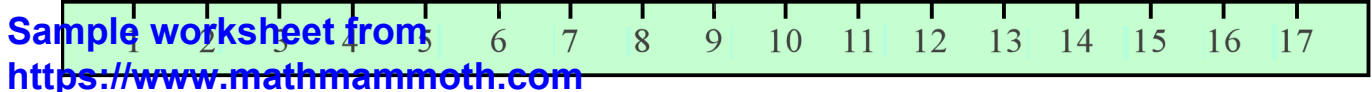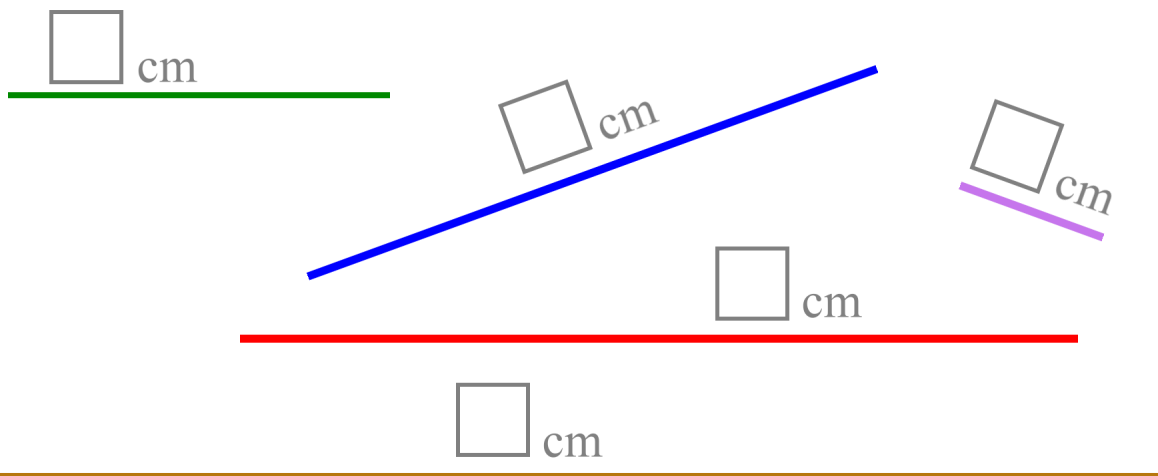
3. Draw the last side for these figures with a ruler. Then measure all three sides of each
   figure. Write the measurement next to each line (for example "6 cm").
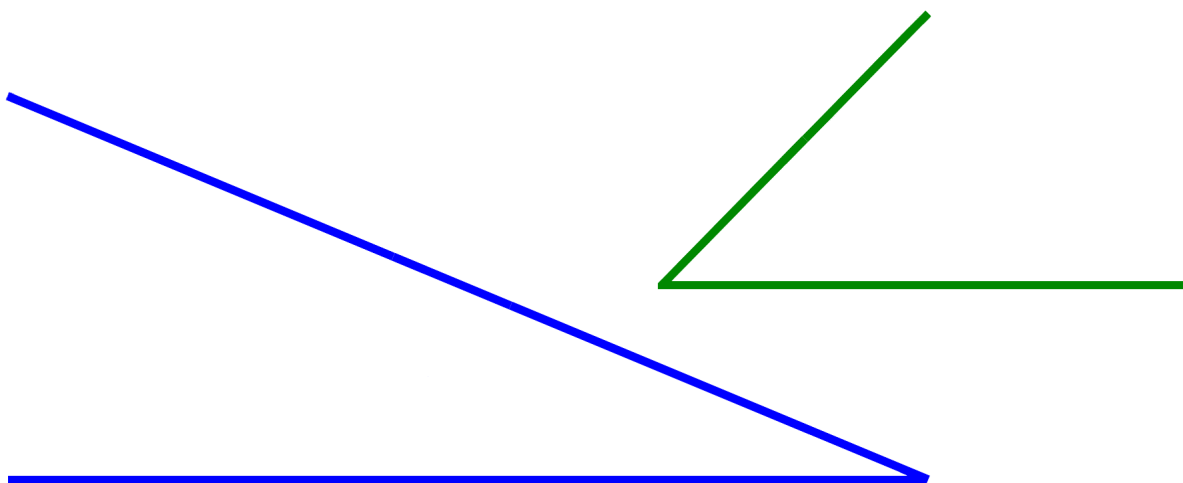
4. Use your own ruler and draw lines that are these lengths.
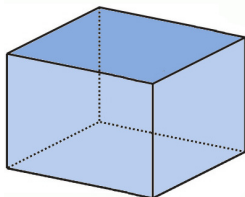
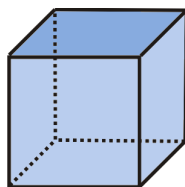   **a.** 4 cm

   b. 5 cm

   c. 8 cm

   d. 16 cm

5. Measure some things around you! For example, a book, a pencil, a table, and so on.

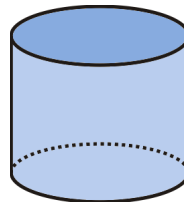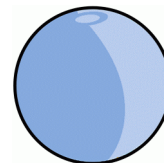| Thing	How long?

Three-Dimensional Shapes

This is a **box**. It is also called a "rectangular prism."

A **cube** is a box, too, but all of its edges are the same length.

A **cylinder** has a circle on the bottom and on the top.

This is a **ball** or sphere.

1. Are these things in the shape of a *box* or a *cube*? Underline the right choice.
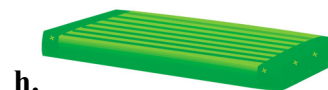
a.
box *or* cube

b.
box *or* cube

c.
box *or* cube

d.
box *or* cube

e.
box *or* cube

f.
box *or* cube

g.
box *or* cube

h.
box *or* cube

2. Find four things in your classroom or at home in the shape of a *box*.
   Put them in order from smallest to biggest.
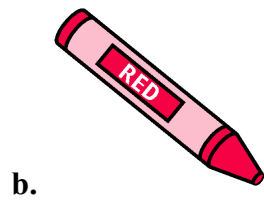
   I found _____, _____,

   _____, and _____.

3. Find two things in your classroom or at home in the shape of a *cube*,
   one smaller and one bigger.

   I found _____ and _____.

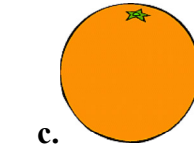4. Are these things in the shape of a *cylinder* or a *ball*? Underline the right choice.

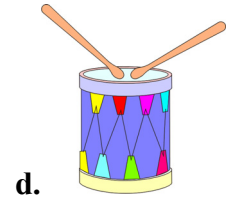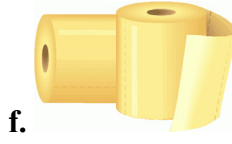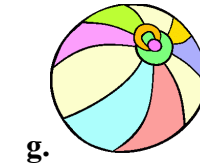| a.	b.	c.	d.
cylinder *or* ball	cylinder *or* ball	cylinder *or* ball	cylinder *or* ball

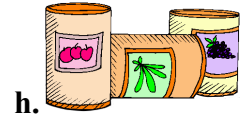| e.	f.	g.	h.
cylinder *or* ball	cylinder *or* ball	cylinder *or* ball	cylinder *or* ball

5. Which shapes can roll on the floor? Underline. *cylinder   box   ball   cube*

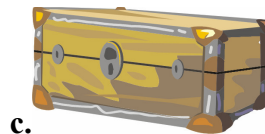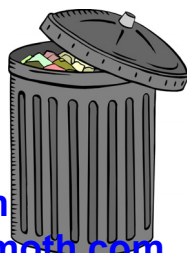6. Which shapes will slide on the floor and not roll? *cylinder   box   ball   cube*

7. Find four things in your classroom or at home in the shape of a *ball*.
   Put them in order from smallest to biggest.

   I found _____, _____,

   _____, and _____.

8. Find four things in your classroom or at home in the shape of a *cylinder*.
   Put them in order from smallest to biggest.

   I found _____, _____,

   _____, and _____.

9. Name the basic shape.

c.

d.

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Chapter 7: Adding and Subtracting Within 0-100
Introduction

This seventh chapter progressively presents a variety of easy addition and subtraction problems with numbers from 0 to 100. It includes these topics:

- Adding a two-digit number and a single-digit number without carrying:
  For example, 23 + 4 or 56 + 3.

- Subtracting a one-digit number from a two-digit number without borrowing:
  For example, 45 − 3 or 67 − 6.

- Adding or subtracting two-digit numbers in columns (one number under the other) without regrouping (carrying or borrowing).

- Recognizing that sometimes in adding two-digit numbers we need to carry—to combine ten ones to make a new ten. We approach this concept using concrete visual models and don't treat it as an abstract concept.

- Practising specific strategies for adding or subtracting numbers under 20 (such as 7 + 9 or 15 − 8): a trick with nine and eight, adding just one more than a known sum, and using the relationship between addition and subtraction to subtract. Actually memorizing these basic addition and subtraction facts is left for second grade.
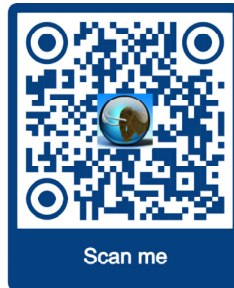
The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!
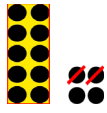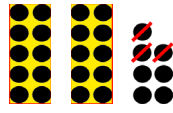
https://links.mathmammoth.com/gr1ch7

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Subtracting Without Regrouping

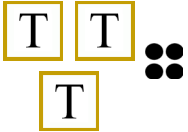|		Think of the *ones digits* only. Because we don't have to subtract from the tens, the tens stay the same.
14 – 2 = 12	**27 – 3 = 24**	
"I can subtract 4 – 2 = 2; the 10 stays the same."	"I can subtract 7 – 3 = 4; the 20 stays the same."	
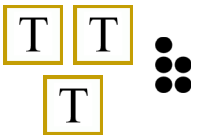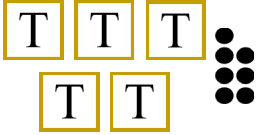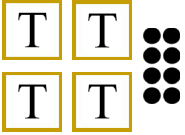
1. Subtract and compare. The top problem helps you solve the bottom one!

a. 8 – 2 = __6__ 28 – 2 = __26__	**b.** 7 – 6 = _____ 17 – 6 = _____	**c.** 7 – 7 = _____ 67 – 7 = _____
d. 6 – 6 = _____ 56 – 6 = _____	**e.** 9 – 8 = _____ 49 – 8 = _____	**f.** 5 – 2 = _____ 95 – 2 = _____

2. Subtract. Write a "helping problem" below that uses only numbers less than 10.

a. 54 – 2 = _____ 4 – 2 = _____	**b.** 76 – 2 = _____ ____ – ____ = _____	**c.** 88 – 4 = _____ ____ – ____ = _____

3. Subtract. Cross out dots. Each box marked with a "T" stands for a ten.

a. 35 – 4 = _____ 35 – 3 = _____ 35 – 2 = _____	**b.** 57 – 7 = _____ 57 – 5 = _____ 57 – 3 = _____	**c.** 48 – 2 = _____ 48 – 4 = _____ 48 – 6 = _____	**d.** 34 – 1 = _____ 34 – 2 = _____ 34 – 4 = _____

4. Subtract.

a.	b.	c.	d.
$77 - 6 =$ _____	$47 - 2 =$ _____	$57 - 4 =$ _____	$15 - 3 =$ _____
$22 - 1 =$ _____	$75 - 1 =$ _____	$86 - 2 =$ _____	$98 - 4 =$ _____
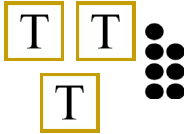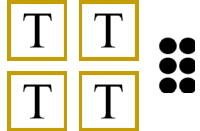
5. Find the missing numbers (addends).

a. $10 +$ _____ $= 15$	b. $21 +$ _____ $= 22$	c. $65 +$ _____ $= 69$
$32 +$ _____ $= 38$	$94 +$ _____ $= 95$	$33 +$ _____ $= 36$
$72 +$ _____ $= 79$	$44 +$ _____ $= 48$	$91 +$ _____ $= 98$

6. Solve.

a. In the morning Ariel sold 21 pictures that she had painted, and in the afternoon she sold 7. How many pictures did she sell in total?

b. Ariel had 30 pictures to sell when she started.
How many does she have left now?

c. Ariel can paint a picture in one hour. She started painting at 4:30 and painted three pictures. At what time did she stop painting?

7. Take away all the ones (the dots) so that only the whole tens are left.

a.	b.	c.
$37 -$ _____ $= 30$	$46 -$ _____ $= 40$	$28 -$ _____ $=$ _____
d. $57 -$ _____ $=$ _____	e. $85 -$ _____ $=$ _____	f. $69 -$ _____ $=$ _____

8. Solve. In the last row, make your own problems, and let a friend solve them!

a. $50 + \bigcirc = 57$	**b.** $\bigcirc + 2 = 88$	**c.** $79 - 9 = \bigcirc$
d. $\bigcirc - 5 = 20$	**e.** $90 - \bigcirc = 85$	**f.** $42 = 40 + \bigcirc$

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

9. Count by fives. Notice the patterns! A 100-chart or an abacus can help you.

  a. 10, 15, _____, _____, _____, _____, _____, _____, _____

  b. 1, 6, _____, _____, _____, _____, _____, _____, _____

  c. 3, 8, _____, _____, _____, _____, _____, _____, _____

10. Continue the patterns.

a.	b.	c.
$88 - 0 = \underline{\quad}$	$95 - 2 = \underline{\quad}$	$48 - 1 = \underline{\quad}$
$88 - 1 = \underline{\quad}$	$85 - 2 = \underline{\quad}$	$46 - 1 = \underline{\quad}$
$88 - 2 = \underline{\quad}$	$75 - 2 = \underline{\quad}$	$44 - 1 = \underline{\quad}$
$88 - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - 1 = \underline{\quad}$
$88 - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$
$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$
$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$	$\underline{\quad} - \underline{\quad} = \underline{\quad}$

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Chapter 8: Coins
Introduction

In this chapter about money and coins, the international version of Math Mammoth uses Canadian currency in the chapter about money and coins. The download version of the text includes, in a separate folder, versions of this chapter in European, South African, Australian, US, and British currencies, too. Since the book has only pictures of the coins, practising with real coins is advisable.

The goals of this chapter are:

- The student can identify and count 5-cent, 10-cent, 25-cent, and 50-cent coins.

- The student can count the money in coins when the sum of the cents is 100.

- The student can identify the one-dollar and two-dollar coins and use them to make up a given amount of money.

The student will also practise making given money amounts with coins and using coins in simple shopping situations. We will practise making purchases and giving change more in grades 2 and 3.

The Lessons

Helpful Resources on the Internet

We heartily recommend you take a look at the list. Many of our customers love using these resources to supplement the bookwork. You can use the resources as you see fit for extra practice, to illustrate a concept better, and even just for some fun. Enjoy!

https://links.mathmammoth.com/gr1ch8#ca-money

Scan me

Counting Dimes and Nickels

This coin is one **nickel**. It is worth five cents, or 5¢.

Here is a small picture of a nickel.

This coin is called one **dime**. It is worth ten cents - 10¢.

To find the total value, add the cent values. It is called **counting up**. Start counting with the coins that have the largest value.

Count
up →   10¢   20¢   25¢   30¢   35¢   40¢

The total on the right is 40¢.

1. Count and write the total amount in cents.

a.

_____ cents

b.

_____ cents

c.

_____ cents

d.

_____ cents

e.

_____ cents

f.

_____ cents

g.

_____ cents

h.

_____ cents

i.

_____ cents

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Quarters

One **quarter** is 25 cents.

The word "quarter" means one-fourth.
A quarter coin is one-fourth part of a **dollar**.

One dollar is worth 100 cents, and is written $1.

4 quarters = 1 dollar

100¢ = 100¢

Two quarters = 50¢

Three quarters = 75¢

25¢   35¢   45¢   55¢
(count dimes by tens)

Count the quarters first since they have the most cent-value.

Then count the other, smaller coins.

1. Quarters and dimes. Write the total amount in cents.

a.

b.

c.

d.

e.

f.

g.

h.

i.

2. Quarters and nickels. Write the total amount in cents.

a.	b.	c.

3. How much money? Write the amount in cents.

a.	b.
c.	d.
e.	f.
g.	h.
i.	j.
k.	l.

4. How much is the total if you have:

a. two dimes and a quarter	**b.** two dimes, four nickels
c. a dime and two nickels	**d.** two quarters, three dimes, three nickels

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Revision—Coins

1. How much money? Write down the amount in cents.

a.	**b.**	**c.**
d.	**e.**	**f.**

2. Draw to make these amounts of money.

a. 55¢	**b.** 35¢	**c.** 75¢
d. 85¢	**e.** 70¢	**f.** 45¢

3. You buy an item. How much money will you have left?

a. You have: You buy a comb for 30¢.

How much is left?

b. You have: You buy hairpins for 65¢.

How much is left?

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