
Chapter 8: Coins

Introduction

In this chapter about money and coins, Math Mammoth uses US currency in the chapter about money and coins. The download version of the text includes, in a separate folder, versions of this chapter in Australian, British, Canadian, European, South African, and New Zealand 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 1, 2, 5, 10, 20, and 50-cent coins.
- The student can count the money in coins when the sum of the cents is 100.

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

The Lessons

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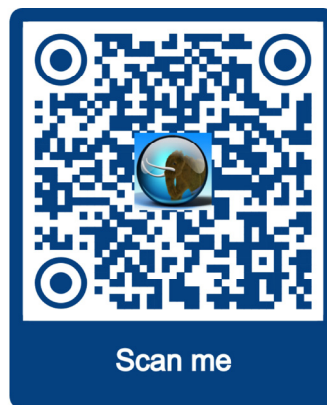
Helpful Resources on the Internet

We have compiled a list of Internet resources that match the topics in this book. This list of links includes web pages that offer:

- **online practice** for concepts;
- online **games**, or occasionally, printable games;
- **animations** and interactive **illustrations** of maths concepts;
- **articles** that teach a maths concept.

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://l.mathmammoth.com/blue/europeanmoney>



Counting One, Two, and Five-Cent Coins



This coin is worth 1 cent (euro cent). We write 1c.



This coin is worth two cents. We write 2c.



This coin is worth five cents = 5c.

In the exercises we use small pictures of these coins.
Can you tell which is which?



Do not confuse these coins! They are all bronze-coloured. The five-cent coin is the largest of these three, and the two-cent coin is larger than the one-cent coin. To be sure, look at the number written on them.



Count up →

5 10 12 13 14 15

To find the total cent-value, add the cent-values. It's called **counting up**.

Start counting with the coins of the largest value. The total on the left is 15 cents.

1. Count and write the total amount in cents.



a. _____c



b. _____c



c. _____c



d. _____c



e. _____c



f. _____c



g. _____c



h. _____c



i. _____c


 10c


 20c


 21c


 22c


 23c

You can count each set of two fives as a ten.

2. Count and write the total amount in cents; especially notice all of the fives.

a.  _____c	b.  _____c
c.  _____c	d.  _____c

Many ways to make the same amount!

Each collection below shows 7 cents, but uses different coins.

 = 7c

 = 7c

 = 7c

If the cent-amount ends in 5, 6, 7, 8, or 9, it is good to use the five-cent coin.

3. Make these amounts of money in different ways. Use five-cent, two-cent and one-cent coins. You can use real money or draw red circles with “5”, with “2”, and with “1”.

a. 8 cents	b. 6 cents	c. 11 cents

Ten, Twenty, and Fifty-Cent Coins



This coin is worth ten cents = 10c.



This coin is worth twenty cents = 20c.



This coin is worth fifty cents = 50c.

Do not confuse these coins! They are all gold coloured. Also, the larger the coin, the more valuable it is. To be sure, look at the number written on them.

Count
up →



Count up to find the total value of the coins. Start counting with the coins of the largest value. Here we have 89 cents.

1. Find the coin value in cents.

a.



_____ c

b.



_____ c

c.



_____ c

d.



_____ c

e.



_____ c

f.



_____ c

g.



_____ c

h.



_____ c

i.



_____ c

j.



_____ c


 30c


 40c


 50c


 55c 56c 57c

You can count each set of two fives as a ten.

2. Count the coins. Write the total amount. Count two fives as a ten.

 a. _____ c	 b. _____ c
 c. _____ c	 d. _____ c
 e. _____ c	 f. _____ c

3. Make these money amounts in three different ways. Either use real money or draw red circles with “5”, with “2” and with “1”, and gold circles with “10” and “20”.

a. 22 cents - one way	d. 35 cents - one way
b. 22 cents - another way	e. 35 cents - another way
c. 22 cents - another way	f. 35 cents - another way

If the cent-amount ends in 5, 6, 7, 8, or 9, it is good to use the five-cent coin, and not lots of ones and twos.



Similarly, when the cent-amount is more than 20 cents, it is good to use the twenty-cent coin. It is not wrong to use lots of tens, but using twenties is more efficient.



4. Make these money amounts. Try to use the *least* amount of coins possible. Think!

a. 82 cents	b. 24 cents
c. 13 cents	d. 34 cents
e. 56 cents	f. 46 cents
g. 62 cents	h. 78 cents
i. 27 cents	j. 94 cents

Practising Shopping

1. Make these amounts of money. You can use real money, or draw the coins.

a. 47 cents	b. 32 cents	c. 88 cents
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2. You have:



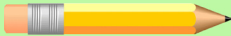
Draw the coins you would use to pay for an item that costs:

a. 27 cents	b. 46 cents	c. 62 cents
d. 48 cents	e. 86 cents	f. 91 cents

3. Write the total amount in cents, if you have:

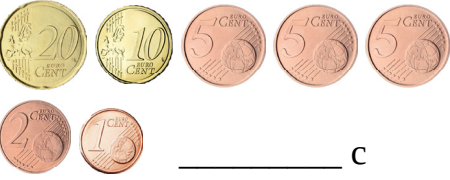
a. two 20-cent coins and three 5-cent coins _____ c	b. four 10-cent coins and four 5-cent coins _____ c
c. a 20-cent coin, five 10-cent coins, and six 2-cent coins _____ c	d. three 20-cent coins, three 5-cent coins, and three 2-cent coins _____ c

4. Cross out the coins you need to buy the item. Write how many cents you have left.

 a. 39c	 b. 88c	 c. 54c
 Left _____ c	 Left _____ c	 Left _____ c
 d. 61c	 e. 97c	 f. 81c
 Left _____ c	 Left _____ c	 Left _____ c
 g. 73c	 h. 45c	 i. 26c
 Left _____ c	 Left _____ c	 Left _____ c

Practising with Coins

1. Write the total amount in cents.

a.  _____ c	b.  _____ c
c.  _____ c	d.  _____ c
e.  _____ c	f.  _____ c

2. Draw one five-cent coin more — how much money is there now?

a.  _____ c	b.  _____ c
c.  _____ c	d.  _____ c
e.  _____ c	f.  _____ c

3. Draw one ten-cent coin more — how much money is there now?

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

4. Make these money amounts. You can use real money, or draw circles with numbers.

a. 25c	b. 39c	c. 14c
d. 38c	e. 63c	f. 56c
g. 81c	h. 45c	i. 27c

5. You have some money, and you get some more. Use real money or draw pictures to help.

a.	b.	c.
$10c + 10c =$	$21c + 5c =$	$40c + 20c =$
$11c + 10c =$	$24c + 5c =$	$53c + 10c =$
$13c + 10c =$	$25c + 5c =$	$55c + 5c =$
$15c + 10c =$	$20c + 5c =$	$56c + 20c =$
$16c + 10c =$	$27c + 5c =$	$58c + 30c =$

Change

When you buy something in a store, you often do not have the exact amount of money to pay for it. Instead, you give the clerk *more* money than what the item costs. The clerk then gives you some money back. This is called *your change*.

A pen costs 55 cents. You don't have the coins to make exactly 55 cents, so you give the clerk 60 cents. That is 5 cents too much! But then the clerk gives you back 5 cents, which is your change.

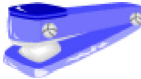
 Price: 55c	You give:  60c	Your change:  5c
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The clerk gives you back the *difference* between the price and what you paid.

In the problems below, find the change you get back. Think of the DIFFERENCE between the price and what you pay; or, think how many cents you paid “too much”. That is your change.

You can set up a “play store” to do these problems, using real money, one person as a clerk, and one person as a customer.

1. Write how many cents you give, and how many cents you get back in change.

a.  You gave:  Your change: Price: 15c _____c _____c	b.  You gave:  Your change: Price: 30c _____c _____c
c.  You gave:  Your change: Price: 35c _____c _____c	d.  You gave:  Your change: Price: 17c _____c _____c

e. You gave: Your change:   Price: 22c _____c _____c	f. You gave: Your change:   Price: 11c _____c _____c
g. You gave: Your change:   Price: 50c _____c _____c	h. You gave: Your change:   Price: 70c _____c _____c

2. Write how many cents is your change.

a. You bought a drink for 55c.		Change: _____c
b. You bought raisins for 33c.		Change: _____c
c. You bought a toy for 46c.		Change: _____c
d. You bought a book for 88c.		Change: _____c
e. You bought a basket for 75c.		Change: _____c
f. You bought crayons for 63c.		Change: _____c

3. Practise some more! Figure out the change.

a. Paper costs 70c. You give €1. Change: _____c	b. A banana costs 41c. You give 50c. Change: _____c	c. A book costs 94c. You give €1. Change: _____c
d. A toy costs 20c. You give 50c. Change: _____c	e. A drink costs 80c. You give €1. Change: _____c	f. A towel costs 62c. You give 75c. Change: _____c

4. Now you buy many items. First add their prices to find the total. Then find the change.
 Draw the coins that could be your change.

a. A magazine costs 25c. You bought three of them. You gave €1. <u>Total cost: 75c</u> <u>Change: 25c</u> 
b. A toy costs 15c and another toy 20c. You give 50c. Total cost: _____c Change: _____c
c. A lollipop costs 8c. You buy two of them. You give 20c. Total cost: _____c Change: _____c
d. A pencil costs 5c. You buy three of them. You give 20c. Total cost: _____c Change: _____c
e. An eraser costs 35c and a pencil 10c. You give 50c. Total cost: _____c Change: _____c

Revision - Coins

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

 a. _____ c	 b. _____ c	 c. _____ c
 d. _____ c	 e. _____ c	 f. _____ c

2. Draw to make these amounts of money.

a. 52 cents	b. 27 cents	c. 76 cents
d. 85 cents	e. 79 cents	f. 34 cents

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

a. Bob has: 	Bob bought a comb for 29c. How much will he have left?	b. Sue has: 	Sue bought hairpins for 62 cents. How much will she have left?
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