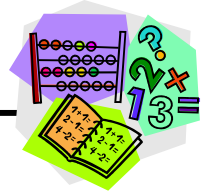# Decimals, Fractions and Money
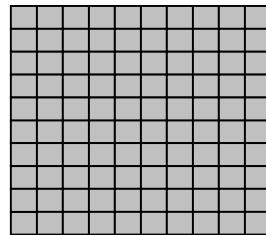
When dealing with money, it is important to know your decimals and fractions.

The following symbols represent pennies and dimes.
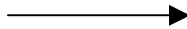
☐ = 1 penny

▦ = 1 dime (10 pennies)

▦ = 1 dollar
= 10 dimes
100 pennies

One penny (one cent) is $\frac{1}{100}$ of a dollar. That is, 100 pennies are in 1 dollar. This could be expressed:
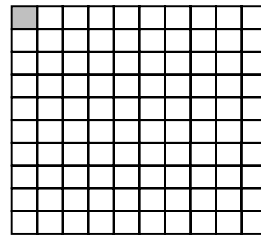
in diagram form ⟶

in money form: $0.01 or 1¢

in decimal form: 0.01

in fraction form: $\frac{1}{100}$

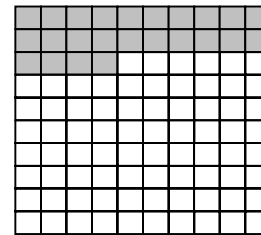in word form: one one hundredth

Twenty-four cents can be expressed:

in diagram form ⟶

in money form: $0.24 or 24¢

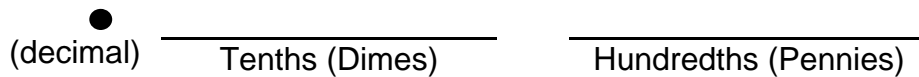in decimal form: 0.24

in fraction form: $\frac{24}{100}$

in word form: twenty-four one hundredths

Can you recognize a pattern when writing numbers with two decimal places?

Dimes are placed in the tenths position because 10 dimes = 1 dollar.
Pennies are placed in the hundredths position because 100 pennies = 1 dollar.

●

(decimal)   Tenths (Dimes)   Hundredths (Pennies)

Examples

A) 24¢ could be represented as:
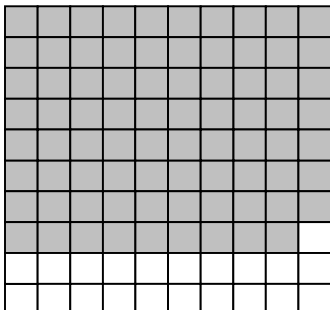- $0.24
- 24 pennies
- 2 dimes and 4 pennies.

Two is placed in the tenths position.
Four is placed in the hundredths position.

B) $0.79 can be shown as:
- 79 cents
- zero decimal seventy-nine
- 79 pennies
- 7 dimes and 9 pennies.

$0.79 can also be represented by shading 79 squares on a 10 x 10 grid. Notice that 79 of the total 100 squares are shaded.

The following chart shows the relationships among money, fractions, decimals and word forms.

Money Value	Dimes	Pennies	Fraction	Decimal	Word Form
$0.57	5	7	$\frac{57}{100}$	0.57	fifty-seven hundredths
$0.42	4	2	$\frac{42}{100}$	0.42	forty-two hundredths
$0.35	3	5	$\frac{35}{100}$	0.35	thirty-five hundredths
$0.60	6	0	$\frac{60}{100}$	0.60	sixty hundredths

If a value has pennies and no dimes, a zero is placed in the tenths position as a place holder.

Example 0.05

If a value has dimes and no digit in the hundredths position, a zero is placed in the pennies (hundredths) position as a place holder.

Example 0.20

When writing cheques, money values are written in digits and words.
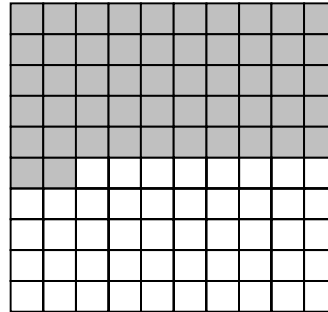
Example

No. 007

Pay to the order of _____ $ 146.72

One hundred forty-six dollars _____   72/100

_____
Signature

Practice: Decimals, Fractions and Money

1.
    a) How many squares are shaded?
    b) What is the money form?
    c) What is the fraction form?
    d) What is the decimal form?
    e) How do you say it in word form?

2.
    a) How many squares are shaded?
    b) What is the money form?
    c) What is the fraction form?
    d) What is the decimal form?
    e) How do you say it in word form?
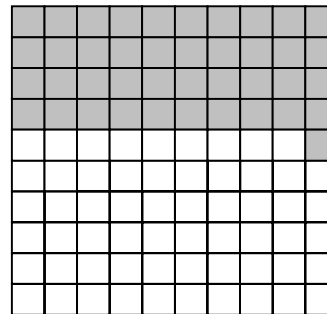
3. Select a partner. Shade some of the squares in a grid. Ask your partner to identify the money, decimal, fraction and word forms.

With your partner, complete a variety of similar activities to review your understanding of the relationship among money, decimals and fractions.

4. Place the following money values on the chart and discuss your placement with a classmate. Remember, cents are less than a whole dollar, so they are written as decimal numbers. The first two questions have been done for you.

   a) 1¢
   b) 24¢
   c) 56¢
   d) 20¢
   e) 84¢
   f) 7¢

	Hundreds	Tens	Ones	●	Tenths	Hundredths	Money Value
a)				●	0	1	1¢
b)				●	2	4	24¢
c)				●			
d)				●			
e)				●			
f)				●			

5. Complete the following:
   a) 56¢ is fifty-six hundredths

   b) 20¢ is _____

   c) 84¢ is _____

   d) 7¢ is _____

6. We know that 1¢ can be expressed in fraction form as $\frac{1}{100}$.

   24¢ expressed in fraction form is $\frac{24}{100}$.

   Write the fraction forms of:

   a) 56¢

   b) 20¢

   c) 84¢

   d) 7¢

7. Complete the chart.

Money Value Cents (pennies)	Decimal form	Fraction form	Word form
1¢	0.01	$\frac{1}{100}$	one one hundredth
24¢	0.24	$\frac{24}{100}$	twenty-four one hundredths
56¢			
84¢			
7¢			
96¢			
10¢			
3¢			
69¢			
77¢			

8. Shade the grids to illustrate the values and fill in the blanks.

a) $0.49

Money form:_____

Decimal form:_____

Fraction form:_____

Word form: _____

b) eighty-seven cents

Money form: _____

Decimal form: _____

Fraction form: _____

Word form: _____

c) 0.65

Money form:_____

Decimal form:_____

Fraction form:_____

Word form: _____

d) 37¢

Money form: _____

Decimal form: _____

Fraction form: _____

Word form: _____

Practice: Comparing Fractions, Decimals and Money

9. Complete the chart by filling in the blank spaces with the correct values or terms.

Money Value	Dimes	Pennies	Fraction	Decimal	Word Form
$0.18	**1**	**8**	$\frac{18}{100}$	**0.18**	**eighteen hundredths**
$0.71		1		0.71	
	6	9			
			$\frac{40}{100}$		
					ninety-nine hundredths
	8	6			
$0.55					
			$\frac{32}{100}$		

Did you know?
In the United States people write cents as: 25¢   not $0.25

Think About …

Many jobs involve handling money. Can you think of ten jobs in your community?

Do you think that good money skills could help you get a job?