

**Resource Overview** 

Quantile® Measure: 70Q

**Skill or Concept:** Determine the value of sets of coins. (QT-M-105)

**Excerpted from:** 



The Math Learning Center
PO Box 12929, Salem, Oregon 97309-0929
www.mathlearningcenter.org
© Math Learning Center

# This resource may be available in other Quantile utilities. For full access to these free utilities, visit www.quantiles.com/tools.aspx.

The Quantile® Framework for Mathematics, developed by educational measurement and research organization MetaMetrics®, comprises more than 500 skills and concepts (called QTaxons) taught from kindergarten through high school. The Quantile Framework depicts the developmental nature of mathematics and the connections between mathematics content across the strands. By matching a student's Quantile measure with the Quantile measure of a mathematical skill or concept, you can determine if the student is ready to learn that skill, needs to learn supporting concepts first, or has already learned it. For more information and to use free Quantile utilities, visit www.Quantiles.com.



1000 Park Forty Plaza Drive, Suite 120, Durham, North Carolina 27713

### **Set A6** ★ Activity 1



#### **ACTIVITY**

#### **Dollars & Cents**

#### Overview

Students use the cent and dollar symbols, as well as the decimal point, to label different amounts of money in the context of a new game, Dollars and Cents.

#### **Skills & Concepts**

- ★ determine the value of mixed collections of coins up to \$1.00
- ★ describe how the cent symbol, dollar symbol, and decimal point are used to name the value of coin and bill collections

#### You'll need

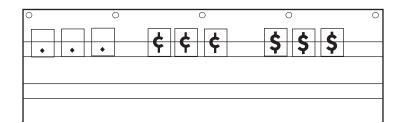
- ★ Coin & Bill Cards (pages A6.4—A6.7, see Advance Preparation)
- ★ Symbol Cards (page A6.8, see Advance Preparation)
- ★ two 3" x 5" pieces of construction paper, one red and the other blue
- $\star$  20–25 3"  $\times$  5" index cards
- ★ wide-tipped felt marker
- ★ pocket chart
- ★ Pigs Will Be Pigs by Amy Axelrod (optional)

Advance Preparation Follow the instructions at the top of the Coin & Bill and Symbol Cards (pages A6.4–A6.8) to prepare the cards for this game. It's not necessary to laminate these cards, but the students will handle them, and they'll hold up longer if you do. Mix the Coin & Bill Cards thoroughly and place them in a stack face-down on a desk or small table near the discussion circle. Place the Symbol Cards in the top row of your pocket chart, which should also be near the discussion circle and easily visible to all the students.

••••••

#### Instructions for Dollars & Cents

1. Gather the children to your discussion circle and explain that you're going to play a new game today. Some of the playing cards are already up on the pocket chart. Ask the children to share anything they already know about these symbols.



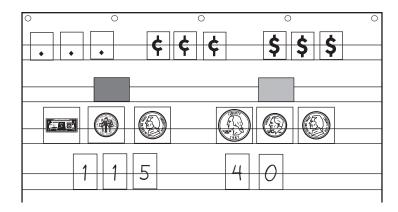
#### Activity 1 Dollars & Cents (cont.)

**Students** The big ones are dollar signs.

Those ones that look like little c's mean cents.

Those others are dots. I think sometimes people use dots when they write money, but I'm not sure. My mom told me those dots are called decimal points. You need them with dollars, I think.

- 2. Acknowledge students' comments and explain that they'll be learning more about these symbols as they play the game today. Then divide the class into 2 teams, the Reds and the Blues, and show them the red and blue construction paper team markers you've prepared. Use any method you want to decide which team will start first. Place the color marker for that team on the left-hand side of the pocket chart in the second row, and the color marker for the other team on the right-hand side.
- 3. Call a volunteer from the starting team to come up and take the top card from the stack of Coin and Bill Cards you've placed near the discussion circle. Ask her to post it in the third row, below her team's color marker. Work with the class to identify the name and value of the coin or bill. Now ask a volunteer from the other team to do the same.
- 4. Repeat step 3 two more times. Each time a team adds a new coin or bill to their side, ask students to count the amount of money they've collected so far. If students on one or both teams want to shift their cards so the bills and coins are ordered by denomination, that's fine. When each team has drawn 3 cards and determined their total, record the amounts on index cards, 1 card per digit, as shown below.



5. Then call on each team to label their winnings with the proper symbols, inserting dollar signs, cent signs, and/or decimal points in the appropriate locations. Let them experiment until the display "looks right." If none of them know how to use the symbols correctly, provide guidance to do so.

**Teacher** What does the number below the blue team's money say?

**Paulina** It says one hundred and fifteen.

**David** But we didn't get one hundred and fifteen. We got a dollar and 15 cents.

**Teacher** True. How could you use the symbols from the top of the pocket chart to label the amount you got?

*Hunter* Put a dollar sign before the 1 and a cent sign after the 5! Can I try it?

#### **Activity 1** Dollars & Cents (cont.)

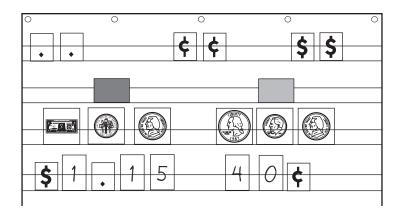
**Erin** That doesn't look right. It doesn't look like the signs at the store. Can I do it over? I think we need to take off the cents sign and put one of these dots here.

#### **Students** Yeah!

That looks better.

Now it really says 1 dollar and 15 cents.

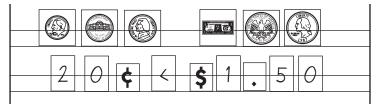
Can I put a cent sign after our money? We don't need a dollar sign or a dot, just one of those ones that looks like a c with a line through it.



- 6. Once both teams' winnings have been properly labeled, discuss the symbols with the class. Some of your students may already be familiar with the dollar and cent signs. Work with their input to explain that people use the decimal point to separate dollars and cents. The decimal point is usually read as "and", so \$1.15 is read as, "One dollar and 15 cents." Amounts less than a dollar are sometimes just labeled with a cents sign, but they can also be labeled using the dollar sign and the decimal point. For example, 40 cents can be expressed as \$0.40, or, "Zero dollars and forty cents".
- 7. If time allows, play two more rounds of the game. Have the teams take turns to go first. At the end of all 3 rounds, have the teams total their winnings. The team with the most money wins.

#### **Extensions**

• Write a greater than/less than symbol on an index card and position it correctly to show which team collected more money each time you play a new round.



- Play Dollars and Cents with your class again and/or leave the cards and the pocket chart out for students to use during Work Places. You might also have an instructional aide play the game with students who need additional help learning to count money.
- Read *Pigs Will be Pigs* by Amy Axelrod, to your class before or after this activity. Our second graders love the book, and it provides great opportunities to practice counting money.

### Coin & Bill Cards page 1 of 4



## Coin & Bill Cards page 2 of 4



### Coin & Bill Cards page 3 of 4



### Coin & Bill Cards page 4 of 4





Coin & Bill Card

Coin & Bill Card





Coin & Bill Card

Coin & Bill Card

### **Symbol Cards**

