

Mathematics: Measurement and Data, Numbers and Operations in Base Ten

2.MD.8

2.NBT.5

Cluster Headings: **2.MD.C** Work with money and time, **2.NBT.B** Use place value understanding & properties of operations to add and subtract.

Content Standards: **2.MD.8** Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. **2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Practice Standard: **MP3** Construct viable arguments and critique the reasoning of others.

Problem/Task Suggestions

Jamir's Penny Jar

Jamir collected some pennies in a jar. Recently, he added coins other than pennies to his jar. Jamir reached his hand in the jar and pulled out this combination:



- What is the total value of these coins?
- Jamir wants to count the total value of these coins. What coin do you suggest he start with? Why would Jamir want to start counting with this coin?

Differentiation

Supports

- Use a combination of only pennies and dimes.

Extensions

- Use combination of coins with more quarters.
- Jamir reached into the jar again and was surprised to pull out a different combination of coins with the same total value as before. Draw a collection of coins that Jamir could have pulled from the jar. Write a number sentence that represents the total value of the coins.

Formative Assessment Suggestions

Observation of Students

Does the student

- Demonstrate coin recognition and value?
- Articulate addition strategies?
- Demonstrate an ability to skip count for combinations that involve more than one nickel, dime, or quarter?

Questions to Guide Student Thinking

- What coins do you suggest he start with?
- Why would he want to start counting with this coin?
- Why do we need to be able to count coins?

Misconceptions

- Students may not understand the value of the coins.

Vocabulary Considerations

Nickel, dime, quarter, penny, counting on, skip counting

Adapted from: <http://www.illustrativemathematics.org/illustrations/1071>