

Further investigations:

Money Grab Game. Choose coins with a value of \$1.00 or less. Place the coins in a bag. Each player reaches in and grabs a few coins. One player then places the grabbed amount on the table and estimates the value of the money. Next, she adds the value of the coins. Discuss the differences or similarities between the estimate and the actual amount. The player records the actual value of the money. (If the calculation is incorrect, help her to re-count as she touches the coins.) The player with the largest amount counted correctly at each draw is the winner.

Place Value Challenge. Remove the face cards from a deck of playing cards and divide the remaining cards evenly among all of the players face down. At the same time, each player draws a card from his stack and places it face up. Also at the same time, the players draw a second card. Players arrange the cards to create the greatest value. The player with the largest number gets all of the cards. At the end of five rounds the player with the most cards is the winner.

Subtraction Races Remove the face cards and deal out all the cards face down. Each player draws two cards from her pile and places them face up. These represent a two-digit number. Each player draws two more cards to represent a second two-digit number. All players subtract their numbers, and the player with the smallest amount after two rounds is the winner.

Terminology:

Base-ten understanding: Evidence of base-ten understanding includes building or breaking apart sticks of 10 interlocking cubes, trading equivalent amounts of base-ten blocks, recognizing groups of tens in spoken number words, (thirty-two is three tens and two ones), skip-counting by tens, decade counting (10, 20, 30, etc.), incrementing by tens (28, 38, 48, etc.), and direct place value explanations (forty plus four is forty-four)

Place Value: The value or meaning of a digit based on its position in a number.

Benchmarks: Easy to use numbers that provide natural or personal points of reference in the base-ten number system, such as ten and its multiples, half of ten (5) and its multiples, etc.

Rounding: A process for approximating a number to the nearest unit, ten, hundred, etc.

Stepping Up to Bigger Numbers

Students will:

- Represent and count quantities in multiple ways, including words, pictures, and numerals
- Compare quantities using greater than, less than, and equal ($>$, $<$, $=$)
- Estimate, model, compare, order, and represent whole numbers
- Model the base-ten number system and place value knowledge in different ways
- Use the number line and the hundreds chart to represent number sequences and multiples of 5 and 10
- Use coins and bills for collecting, exchanging, and operating on quantities less than 50

First Grade 5 of 6

Classroom Cases:

1. Tina's mother had four nickels in her pocket. She told Tia if she could count the coins in her pocket correctly, she could keep the coins. Tia started counting, "Five, Ten, Twenty, Thirty". Did Tina get to keep the coins? Explain why or why not.



Case Closed - Evidence:

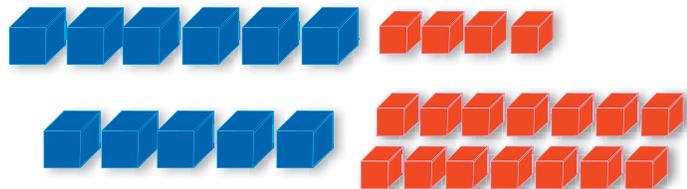
No, Tina did not get to keep the coins. Tina started counting the coins correctly. However, after Tia counted "Five, Ten", she then continued to count by tens. The correct response would have been "Five, Ten, Fifteen, Twenty cents".

2. Cole bought a new eraser at the store for \$0.39 cents. He purchased the eraser using three coins. What coins do you think Cole may have used to purchase the eraser and why?

Case Closed - Evidence:

Quarter, dime and nickel could be a solution because that is the closest amount, and Cole would only have a penny left for change. Quarter, dime and dime would be another solution and would only leave six cents change.

3. Nivea and Miya were working with their base-ten blocks. Nivea had six tens and four ones. Miya had five tens and fourteen ones. Who had the greater amount and why?



Case Closed - Evidence:

Neither girl had the greater amount. Nivea's six tens equal 60 and her four ones equal 4 and together that makes 64. Miya's five tens equal 50 and her fourteen ones equal 14 and together that makes 64. Both girls had the same amount, 64. They were just represented differently.

Clues:

An inexpensive way to support your child with mathematics is a deck of cards. A variety of games and activities can be played at home using the face value of the cards. For the number one use the Ace card. Remove the face cards. When using cards for subtraction, children must have a good understanding of place value and regrouping. When working with money problems, using real money and/or play money are great motivators for children.

Book 'em:

From One to One Hundred by Terri Sloat

The King's Commissioners by A. Friedman

One Gorilla by Atsuko Morozumi

The Button Box by M.Reid

Even Steven and Odd Todd by Kathryn Cristald

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