


Grade 4 Mathematics

Number and Number Relations: Lesson 21

Read aloud to the students the material that is printed in **boldface type** inside the boxes. Information in regular type inside the boxes and all information outside the boxes should **not** be read to students. Possible student responses are included in parentheses after the questions.

NOTE: The directions read to students may depend on the available materials. Read only those parts of the lesson that apply to the materials you are using.

Any directions that ask you to do something, such as to turn to a page or to hand out materials to students, will have an arrow symbol () by them.

Purpose of Lesson 21:

- In this lesson, the tutor and the students will
 - ✓ count money,
 - ✓ calculate with money, and
 - ✓ compare amounts of money.

Equipment/Materials Needed:

- Copies of Student Sheets 98 and 99
- Paper and pencils
- Chalkboard
- Play or real money, or Student Sheet 98
- Scissors

Preparations before beginning Lesson 21:

- If you do not have money available, run Student Sheet 98 on heavy stock paper and cut out the money.
- Run one copy of Student Sheet 99 for each student.
- Have paper and pencils available.


Lesson 21: Number and Number Relations

Say:

In this lesson, you will count money and count change. Let's review skip counting before we begin. Skip count by 5's to 30. (5, 10, 15, 20, 25, 30) Skip count by 5's to 50 starting at 25. (25, 30, 35, 40, 45, 50) Skip count by 5's to 25 starting at 10. (10, 15, 20, 25) Skip count by 10's to 80 starting at 50. (50, 60, 70, 80) Skip by 10's to 55 starting at 25. (25, 35, 45, 55) Skip count by 25's to 150. (25, 50, 75, 100, 125, 150) Skip count by 25's to 200 starting at 75. (75, 100, 125, 150, 175, 200) Skip count by 20's to 100. (20, 40, 60, 80, 100)


Say:

Counting money involves skip counting by 50's, 25's, 20's, 10's, 5's, and 1's. Sometimes you have to skip count by one number and then change and skip count by another number. Skip count by 25's three times and then skip count by 5's four times. (25, 50, 75, 80, 85, 90, 95) You just counted 3 quarters and 4 nickels. Count 2 quarters, 1 dime, and 5 pennies. (25, 50, 60, 61, 62, 63, 64, 65) The answer is 65 or 65¢. You can count bills this way also. Count two 20-dollar bills, three 10-dollar bills, and four 5-dollar bills. (20, 40, 50, 60, 70, 75, 80, 85, 90) You can also use skip counting for a combination of coins and bills.


 Read the following problem to the students. As you read the problem, have one student gather the money and then count. See whether the student starts with the largest amount. Ask whether anyone would have counted differently.

Say:

Julie has four 1-dollar bills, two 5-dollar bills, 3 quarters, and a nickel. How much money does she have? (\$14.80)

 Give the following amounts of money and ask the students to count the money. Have students explain how they are counting. Some may count on, some may group coins into dollar piles. Some may write down the amount for each type of bill and then add them all together. Any of these methods are fine, and students will profit from hearing how others count money.


- A. One 5-dollar bill, two 10-dollar bills, 2 quarters, 5 dimes, and 3 pennies. (\$26.03)
- B. One 20-dollar bill, three 5-dollar bills, 6 quarters, 4 nickels, and 1 dime. (\$36.80)
- C. Two 5-dollar bills, one 10-dollar bill, 1 quarter, 1 dime, 10 nickels, and 5 pennies. (\$20.90)
- D. Nine dimes, 1 quarter, 2 nickels, 1 penny, and one 1-dollar bill. (\$2.26)

 Continue giving amounts if the students are having trouble. If they are having a lot of problems, give amounts that contain only coins, then amounts that contain only bills, and then amounts that contain both coins and bills.

 Give students Student Sheet 99.

Answers:

- 1. Jason, 5¢ more.
- 2. 1 quarter and 1 dime; 1 quarter and 2 nickels; 3 dimes and 1 nickel; 2 dimes and 3 nickels; 1 dime and 5 nickels; 7 nickels
- 3. Maggie, 2¢ more.
- 4. D
- 5. 72¢
- 6. 20 quarters
- 7. \$1.10
- 8. Debra, 140 coins
- 9. Suzie, 25¢ more
- 10. \$10.40

 Have one student summarize today's lesson. Counting money is a skill all students need to develop.

Student Sheet 98 (Number and Number Relations: Lesson 21)

\$1	\$1	\$1	\$1
\$1	\$1	\$1	\$1
\$1	\$1	\$1	\$1
\$5	\$5	\$5	\$5
\$5	\$5	\$5	\$5
\$10	\$10	\$10	\$10
\$10	\$10	\$10	\$10
\$10	\$10	\$10	\$10
\$20	\$20	\$20	\$20

Student Sheet 98 (continued)

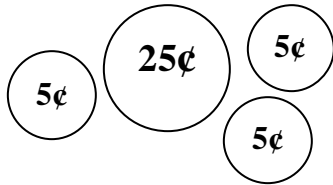
50¢	50¢	25¢	25¢	25¢
25¢	25¢	25¢	25¢	25¢
10¢	10¢	10¢	10¢	10¢
10¢	10¢	10¢	10¢	10¢
5¢	5¢	5¢	5¢	5¢
5¢	5¢	5¢	5¢	5¢
1¢	1¢	1¢	1¢	1¢
1¢	1¢	1¢	1¢	1¢

Student Sheet 99 (Number Relations: Lesson 21)

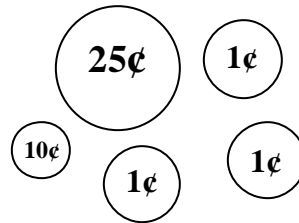
Answer the following questions.

- Jason had the following coins in his pocket: 2 nickels, 3 dimes, and 15 pennies. Morgan had one 50¢ piece. Who had the most money and how much more?
- Yvonne had 35 pennies in her purse. She thought her purse weighed too much and wanted to replace the pennies with other coins. What other coins could she use to make the same amount of money, if she does not want any pennies at all? You may want to make a list.
- Who has more money, Maggie or Isabella? How much more?

Maggie's money

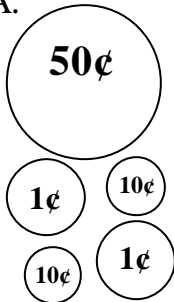


Isabella's money

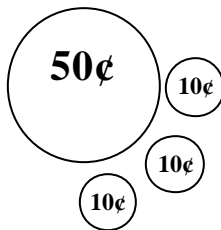


- Which shows Andi's money? She has 5 coins. She has no pennies. She has more than 50¢.

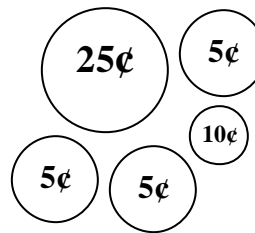
A.



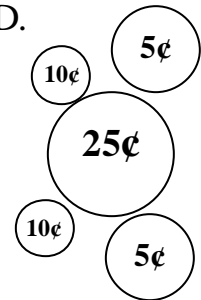
B.



C.



D.



- I have 12 coins. $\frac{1}{2}$ of the coins are nickels, and $\frac{1}{3}$ of the coins are dimes. The rest of the coins are pennies. How much money do I have?

Student Sheet 99 (Number Relations: Lesson 21) continued

6. Chuck has \$5 in quarters. How many quarters does he have?
7. Ricky has 11 dimes. How much money does he have?
8. Paula has \$3 in nickels and Debra has \$2 in pennies. Who has the most coins? How many more?
9. Janelle has 20 nickels and Suzie has 5 quarters. Who has the most money? How much more?
10. How much money do I have if I have the following amounts:
I have 1 bill.
I have 4 coins that are all the same.
I have no quarters.
I have more than \$10.25, but less than \$10.50.