



First Name: _____ Last Name: _____

Teacher: _____ Grade: _____

Coins

Today, in the American currency system, we have coins in denominations of 1¢ (i.e. 1 cent or \$0.01), 5¢, 10¢, 25¢, 50¢, and \$1.00.

| Coin's name | Penny | Nickel | Dime | Quarter | Half Dollar | One Dollar |
|-------------|--------|---------|----------|----------|-------------|---------------------|
| Value | 1 cent | 5 cents | 10 cents | 25 cents | 50 cents | 100 cents or \$1.00 |

Math Challenge #4 is all about coins. Get your coins out if you have to, and don't forget to turn in your answer by the due date. Good luck!

Kinder & First Grade: solve at least 3 problems.
Second & Third Grade: solve at least 6 problems.
Fourth Grade and above: solve at least 12 problems.

Problems

Answer

1. I have two identical coins that are worth 10 cents. What type of coins do I

$$\bigcirc + \bigcirc = 10\text{¢}$$

2. In my right pocket, there are **3 different coins**, and they add up to 36 cents.
What are the coins?

$$\bigcirc + \bigcirc + \bigcirc = 36\text{¢}$$

3. Heidi's cousin, Susan, has 2 dimes and 2 pennies. If Heidi gives Susan 50¢, how much money will Susan have?

4. In my left pocket, there are **3 different coins**, and they add up to 56 cents.
What are the coins?

$$\bigcirc + \bigcirc + \bigcirc = 56\text{¢}$$

5. John bought a lollipop and paid for it with 4 coins that add up to 56 cents.
What are the coins?

$$\bigcirc + \bigcirc + \bigcirc + \bigcirc = 56\text{¢}$$

6. Jeremy has six coins. He has only nickels and dimes. Jeremy has twice as many nickels as dimes. How much money does Jeremy have?

7. Leah has six coins. She has quarters, dimes, and pennies. She has more quarters than pennies. She has more dimes than quarters. How much money does she have altogether?

8. I have exactly ten coins whose total value is \$1. If three of the coins are quarters, what are the remaining coins?

$$\bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc + \bigcirc = \$1.00$$

9. Sam has four coins that total 70 cents. His coin of highest value is a half dollar. Cam has four coins that total 70 cents. His coin of highest value is a quarter. How many dimes do Sam and Cam have in total?

$$\text{Sam: } \textcircled{50\text{¢}} + \bigcirc + \bigcirc + \bigcirc = 70\text{¢}$$

$$\text{Cam: } \textcircled{25\text{¢}} + \bigcirc + \bigcirc + \bigcirc = 70\text{¢}$$

10. Amy has two coins. Wendy has three coins. Both girls have the same amount of money. Neither of Amy's coins matches any of Wendy's coins. How much money does each girl have?

$$\text{Amy: } \bigcirc + \bigcirc$$

$$\text{Wendy: } \bigcirc + \bigcirc + \bigcirc$$

11. Caitlin has \$5.24 in her piggy bank. After she sorted all the coins by type, she noticed that she has only four types of coins and each type has the same number of coins. Which four type of coins does she have and how many of each coin?

12. Carol spent exactly \$1 for several 5¢-stamps and some 13¢-stamps. How many 5¢-stamps did she buy?

13. I have four 3¢-stamps and three 5¢-stamps. Using one or more of these stamps, how many different amounts of postage can I make?

14. Sai had \$6.00 that were exchanged for nickels and dimes. The number of nickels was the same as the number of dimes. How many nickels were there in the change?

15. Tommy has the following seven coins in his pocket: 1 quarter, 2 dimes, 2 nickels, and 2 pennies. Tommy takes out two coins, records the sum of their values, and then puts them back with the other coins. He continues to take out two coins, record the sum of their values, and put them back into his pocket. How many different sums can he record at most? Hint: make an organized list.

16. Inside Allie's purse, there were 4 pennies, 2 nickels, 1 dime, and 1 quarter. Different values can be made by taking out **one or more coins** from Allie's purse. How many different values can be made?

17. Annie had a collection of 390 pennies. She decided to exchange her 390 pennies for quarters, dime, and nickels. She wanted to have a specific amount for each coin. The number of dimes had to be twice the number of quarters and the number of nickels had to be twice the number of dimes. How many quarters did she want to have in the exchange? Hint: simplify the problem.