



Count Coins and Bills

Learning Objectives

For the real situation

1. count the number and value of different denominations of paper money (20, 10, and 5 bills)
2. count coins of varying size including half, dime, and penny
- compare a variety of bills
- count and write the total amount

Manipulate

1. count the value of the paper money and bills in groups of 10 cents
2. count paper for counting groups of 10 cents
3. group coins of like denominations (pennies)

Building the Lesson

1. Show the class how the different size coins and different denominations of bills are the same as money (1). (Show the different denominations for the paper money and the money value.)
2. Show the students how to count the bills. Show how to make the different number of bills (10 cents for the dollar bill or 20¢ for the quarter) and how to make the different number of coins (10 cents for the dollar bill or 20¢ for the quarter) and how to make the different number of coins.

How Many Ways Can \$1.00 Be Made?

| quarters | dimes | nickels | pennies | total value | total count |
|----------|-------|---------|---------|-------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 0.25 | 1 |
| 0 | 1 | 0 | 0 | 0.10 | 1 |
| 0 | 0 | 1 | 0 | 0.05 | 1 |
| 0 | 0 | 0 | 1 | 0.01 | 1 |
| 1 | 1 | 0 | 0 | 0.35 | 2 |
| 1 | 0 | 1 | 0 | 0.30 | 2 |
| 1 | 0 | 0 | 1 | 0.26 | 2 |
| 0 | 2 | 0 | 0 | 0.20 | 2 |
| 0 | 1 | 1 | 0 | 0.15 | 2 |
| 0 | 0 | 2 | 0 | 0.10 | 2 |
| 0 | 0 | 1 | 1 | 0.06 | 2 |
| 0 | 0 | 0 | 2 | 0.02 | 2 |
| 1 | 1 | 1 | 0 | 0.45 | 3 |
| 1 | 0 | 2 | 0 | 0.40 | 3 |
| 1 | 0 | 1 | 1 | 0.36 | 3 |
| 1 | 0 | 0 | 2 | 0.32 | 3 |
| 0 | 2 | 1 | 0 | 0.25 | 3 |
| 0 | 1 | 2 | 1 | 0.20 | 3 |
| 0 | 0 | 3 | 1 | 0.15 | 3 |
| 0 | 0 | 2 | 2 | 0.12 | 3 |
| 0 | 0 | 1 | 3 | 0.08 | 3 |
| 0 | 0 | 0 | 4 | 0.04 | 3 |
| 1 | 2 | 2 | 0 | 0.55 | 4 |
| 1 | 1 | 3 | 0 | 0.50 | 4 |
| 1 | 1 | 2 | 1 | 0.46 | 4 |
| 1 | 1 | 1 | 2 | 0.42 | 4 |
| 1 | 1 | 0 | 3 | 0.38 | 4 |
| 1 | 0 | 3 | 1 | 0.33 | 4 |
| 1 | 0 | 2 | 2 | 0.29 | 4 |
| 1 | 0 | 1 | 3 | 0.25 | 4 |
| 1 | 0 | 0 | 4 | 0.21 | 4 |
| 0 | 3 | 2 | 0 | 0.40 | 4 |
| 0 | 2 | 3 | 1 | 0.35 | 4 |
| 0 | 1 | 4 | 1 | 0.30 | 4 |
| 0 | 0 | 5 | 1 | 0.25 | 4 |
| 0 | 0 | 4 | 2 | 0.22 | 4 |
| 0 | 0 | 3 | 3 | 0.18 | 4 |
| 0 | 0 | 2 | 4 | 0.14 | 4 |
| 0 | 0 | 1 | 5 | 0.10 | 4 |
| 0 | 0 | 0 | 6 | 0.06 | 4 |
| 1 | 3 | 3 | 0 | 0.65 | 5 |
| 1 | 2 | 4 | 0 | 0.60 | 5 |
| 1 | 2 | 3 | 1 | 0.56 | 5 |
| 1 | 2 | 2 | 2 | 0.52 | 5 |
| 1 | 2 | 1 | 3 | 0.48 | 5 |
| 1 | 2 | 0 | 4 | 0.44 | 5 |
| 1 | 1 | 4 | 1 | 0.39 | 5 |
| 1 | 1 | 3 | 2 | 0.35 | 5 |
| 1 | 1 | 2 | 3 | 0.31 | 5 |
| 1 | 1 | 1 | 4 | 0.27 | 5 |
| 1 | 1 | 0 | 5 | 0.23 | 5 |
| 1 | 0 | 5 | 1 | 0.18 | 5 |
| 1 | 0 | 4 | 2 | 0.14 | 5 |
| 1 | 0 | 3 | 3 | 0.10 | 5 |
| 1 | 0 | 2 | 4 | 0.06 | 5 |
| 1 | 0 | 1 | 5 | 0.02 | 5 |
| 0 | 4 | 4 | 0 | 0.40 | 5 |
| 0 | 3 | 5 | 1 | 0.35 | 5 |
| 0 | 2 | 6 | 1 | 0.30 | 5 |
| 0 | 1 | 7 | 1 | 0.25 | 5 |
| 0 | 0 | 8 | 1 | 0.20 | 5 |
| 0 | 0 | 7 | 2 | 0.16 | 5 |
| 0 | 0 | 6 | 3 | 0.12 | 5 |
| 0 | 0 | 5 | 4 | 0.08 | 5 |
| 0 | 0 | 4 | 5 | 0.04 | 5 |
| 0 | 0 | 3 | 6 | 0.00 | 5 |
| 1 | 4 | 5 | 0 | 0.65 | 6 |
| 1 | 3 | 6 | 0 | 0.60 | 6 |
| 1 | 3 | 5 | 1 | 0.56 | 6 |
| 1 | 3 | 4 | 2 | 0.52 | 6 |
| 1 | 3 | 3 | 3 | 0.48 | 6 |
| 1 | 3 | 2 | 4 | 0.44 | 6 |
| 1 | 3 | 1 | 5 | 0.40 | 6 |
| 1 | 3 | 0 | 6 | 0.36 | 6 |
| 1 | 2 | 6 | 1 | 0.31 | 6 |
| 1 | 2 | 5 | 2 | 0.27 | 6 |
| 1 | 2 | 4 | 3 | 0.23 | 6 |
| 1 | 2 | 3 | 4 | 0.19 | 6 |
| 1 | 2 | 2 | 5 | 0.15 | 6 |
| 1 | 2 | 1 | 6 | 0.11 | 6 |
| 1 | 2 | 0 | 7 | 0.07 | 6 |
| 1 | 1 | 7 | 1 | 0.02 | 6 |
| 0 | 5 | 5 | 0 | 0.50 | 6 |
| 0 | 4 | 6 | 1 | 0.45 | 6 |
| 0 | 3 | 7 | 1 | 0.40 | 6 |
| 0 | 2 | 8 | 1 | 0.35 | 6 |
| 0 | 1 | 9 | 1 | 0.30 | 6 |
| 0 | 0 | 10 | 1 | 0.25 | 6 |
| 0 | 0 | 9 | 2 | 0.21 | 6 |
| 0 | 0 | 8 | 3 | 0.17 | 6 |
| 0 | 0 | 7 | 4 | 0.13 | 6 |
| 0 | 0 | 6 | 5 | 0.09 | 6 |
| 0 | 0 | 5 | 6 | 0.05 | 6 |
| 0 | 0 | 4 | 7 | 0.01 | 6 |
| 0 | 0 | 3 | 8 | 0.00 | 6 |