

# Math Worthwhile Task: Coin Combinations

Primary level (2<sup>nd</sup> Grade)

Sandy McMinds

Identifying coins and their values. Ordering and comparing coins. Coin combinations for amounts up to \$1.00.

Common Curriculum Goals: Calculations and Estimations. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.

Oregon Grade-Level Foundations for Grade 2: Order and compare coins by making equivalent amounts up to \$1.00.

This lesson should be implemented after the class has a good understanding of the names of coins and their values, and after completion of two digit addition.

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# Coin Combinations

You have these coins:



Task 1: How many combinations can you make using only three of the coins above? What is the total amount of the three coins?

10¢	5¢	1¢	TOTAL ¢



Task 2: Add a quarter to the group of coins above.

- 1) How will the combinations change if you can still only use three coins?
- 2) How will the combinations change if you use four coins?



Task 3: Add a fifty cent piece to your coins above.

- 1) How would the combinations change if you can only use three coins?
- 2) How will the combinations change if you can use four coins?

- Extend:
- 1) How can you show that you have found all the possible combinations in each of the tasks above?
  - 2) In Task 3, how many coins does it take to add up to \$1.00? Is there more than one combination of these coins that add up to \$1.00?
  - 3) If you are given one fifty cent piece, two quarters, five dimes, five nickels, and ten pennies how many combinations of coins can you find that add up to \$1.00? What combination of these coins would use the least amount of coins to add up to \$1.00?  
Draw, sketch or make a chart to show your thinking of how you found the combinations for problem 2.