Preliminary Planning Sheet
Grade 5 – Dimes and Dollars

Domain(s)

Number and Operations in Base Ten

Standard(s)

5.NBT.A.1

Mathematical Practices

MP.1   MP.2   MP.3   MP.4   MP.5   MP.6

Major Underlying Mathematical Concepts

- Base-10 place value system
- Multiplication
- Decimal notation
- Decimal computation
- Money values

Problem Solving Strategies

- Model (manipulatives)
- Diagram/Key
- Number line
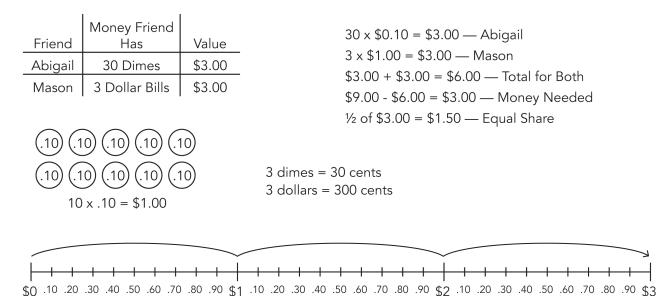- Table

Formal Mathematical Language and Symbolic Notation

- Model
- Diagram/Key
- Number line
- Table
- Decimal
- 0.90, 0.20
- Place value: Ones, tenths
- Money notation ($, .)
- $0.10, $9.00
- Dime, dollar, quarter, nickel, cent, half dollar
- Equal share
- Rules: $0.10n = n/10$, $n/10 = 10 \cdot n$
- Whole
- Percent (%)
- 1/2, half
- Digit
- Multiplication/product
- Addition/Sum
- Total/Amount
- Greater than (>)/Less than (<)

Possible Solution(s)

Abigail is correct.

Friend	Money Friend Has	Value
Abigail	30 Dimes	$3.00
Mason	3 Dollar Bills	$3.00

30 x $0.10 = $3.00 — Abigail

3 x $1.00 = $3.00 — Mason

$3.00 + $3.00 = $6.00 — Total for Both

$9.00 - $6.00 = $3.00 — Money Needed

½ of $3.00 = $1.50 — Equal Share

$$.10 \quad .10 \quad .10 \quad .10 \quad .10$$
$$.10 \quad .10 \quad .10 \quad .10 \quad .10$$

10 x .10 = $1.00

3 dimes = 30 cents
3 dollars = 300 cents

$0 .10 .20 .30 .40 .50 .60 .70 .80 .90 $1 .10 .20 .30 .40 .50 .60 .70 .80 .90 $2 .10 .20 .30 .40 .50 .60 .70 .80 .90 $3

Possible Connections

Below are some examples of mathematical connections. Your students may discover some that are not on this list.

- Rules: 0.10n = n/10, n/10 = 10 · n
- The value of the tenths place must be > 0.
- If you are notating whole dollars, you must have a digit to the left of the decimal.
- A dime is 10% of a dollar.
- 1/2 a dollar is $0.50 or a half-dollar.
- 1/4 a dollar is $0.25 or a quarter.
- An equal share would be $1.50 each.
- $3.00 = 300 cents = 60 nickels = 30 dimes = 12 quarters = 6 half dollars.
- Relate to a similar task and state a math link.