4th Grade Math
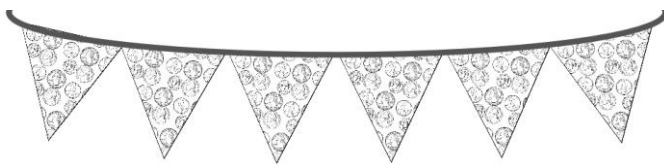
Module 6: Decimal Fractions

Math Parent Letter

This document is created to give parents and students a better understanding of the math concepts found in Eureka Math (© 2013 Common Core, Inc.) that is also posted as the Engage New York material which is taught in the classroom. Module 6 of Eureka Math (Engage New York) covers decimal fractions.

Focus Area ▶ Topic E: *Money Amounts as Decimal Numbers*
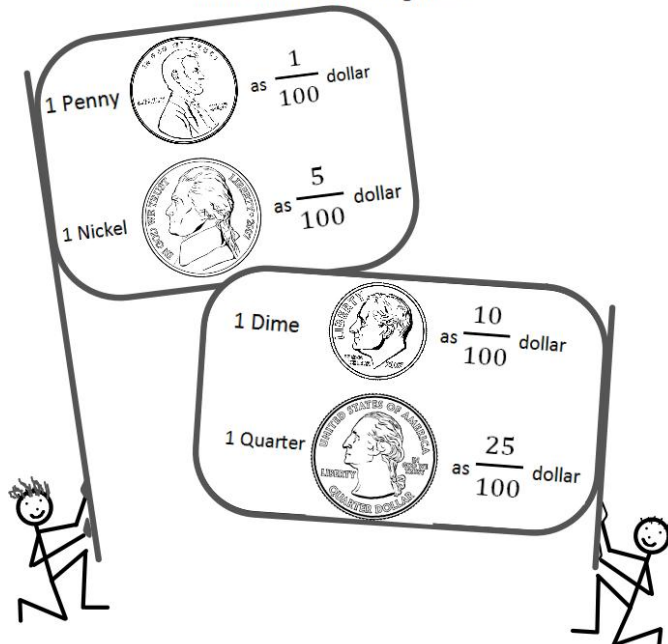
Words to Know:

Decimal fraction - fraction with a denominator of 10, 100, 1,000, etc.

Tenth - place value unit such that 10 tenths equals 1 one whole

Hundredth - place value unit such that 100 hundredths equals 1 one whole

Students need to recognize...

1 Penny as $\frac{1}{100}$ dollar

1 Nickel as $\frac{5}{100}$ dollar

1 Dime as $\frac{10}{100}$ dollar

1 Quarter as $\frac{25}{100}$ dollar

OBJECTIVES OF TOPIC E

▶ Express money amounts given in various forms as decimal numbers.

▶ Solve word problems involving money.

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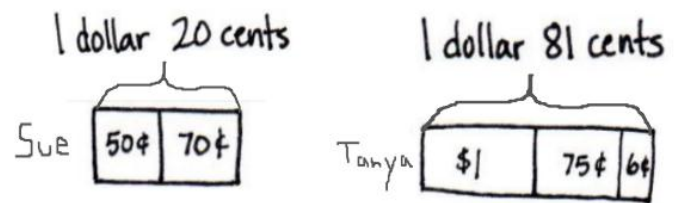
Decimals and Money

Students will use their understanding of tenths and hundredths to express money amounts in both fraction and decimal forms. They use this understanding to decompose varying configurations and forms of dollars, quarters, dimes, nickels, and pennies, and express each as a decimal fraction and decimal number. They solve word problems involving money using all four operations Addition and subtraction word problems are computed using dollars and cents in unit form. Multiplication and division word problems are computed using cents in unit form. All answers are converted from unit form into decimal form.

Example Problem and Answer

Sue has 2 quarters and 7 dimes. Tanya has 1 dollar, 3 quarters, and 6 pennies. How much money do they have together? Write your answer as a decimal.

This student first figured out how much money each student had using a tape diagram. Then he added them together.

1 dollar 20 cents

Sue | 50¢ | 70¢

1 dollar 81 cents

Tanya | $1 | 75¢ | 6¢

1 dollar 20 cents + 1 dollar 81 cents

80 ^ 1

He used a number bond to show 81 as 80 and 1. He put the 80 cents from Tanya with the 20 cents from Sue to make 1 whole dollar.

Unit Form

= 3 dollars 1 cent

He counted 3 whole dollars and 1 cent then he wrote the answer as a decimal.

= $3.01

They have $3.01 together.