MA.5.M.2.1

Overarching Standard: *MA.5.M.2 Solve problems involving money*

Benchmark of Focus

MA.5.M.2.1 Solve multi-step real-world problems involving money using decimal notation.

Example: Don is at the store and wants to buy soda. Which option would be cheaper: buying one24-ounce can of soda for $1.39 or buying two 12-ounce cans of soda for 69¢ each?

Related Benchmark/Horizontal Alignment

- MA.5.NSO.1.1/1.2/1.3
- MA.5.NSO.2.3/2.4/2.5
- MA.5.AR.2.1/2.4
- MA.5.M.1.1

Vertical Alignment

Previous Benchmarks	Next Benchmarks
MA.4.M.2.2	MA.6.NSO.2.3

Purpose and Instructional Strategies

The purpose of this standard is for students to apply understanding of multi-step real-world problems, measurement conversions, and decimal operations to solve problems involving money(MTR.7.1). This benchmark connects to previous work in Grade 4 where students added and subtracted money in real world situations (MA.4.M.2.2). Money contexts continue to be important throughout the later grades.

- During instruction, teachers should provide strategies for helping students comprehend what is happening in the problem and what needs to be found before students complete numerical calculations. Students should be encouraged to estimate a solution and model aproblem using manipulatives, pictures and/or equations before computing (K12.MTR.2.1).

Common Misconceptions or Errors

- Students can misinterpret multi-step word problems and only complete one of the steps.Encourage students to estimate reasonable solutions and justify models to solve before computing.

Questions to ask students:

When you are working with money, how can the decimal point help you?

Possible student response showing understanding: I know that the values to the left of the decimal point are whole numbers, and the value just to the left is the ones place. So then I know that values on the right of the decimal point are the tenths and hundredths. The hundredths are like pennies, and the tenths are like dimes, so the decimal point can help me understand what kind of coins, bills, and place values we are working with.

How did you know which operation(s) to use when solving this problem involving money?

Possible student response showing understanding: *I can break down each of the steps in the problem. When I'm combining values of items, I can either add or sometimes multiply if there are some of the same prices. Usually when I'm looking for change I can subtract, or when we are saving money or using a coupon. Whenever I am going to split up something into equal groups I can probably divide.*

Instructional Tasks

Instructional Task 1

Jordan was saving his money to buy a remote-control motorcycle. He saved $37.81 from his allowance and received two checks worth $10.00 each for his birthday. Jordan also has a halfdollar coin collection with 30 coins in it. If the motorcycle costs $72.29, does Jordan have enough money to buy the motorcycle?

Instructional Items

Instructional Item 1

Pecans and almonds each cost $6.80 per pound. Kendall buys 1.5 pounds of pecans and 2.5pounds of almonds. What is the total cost of Kendall's purchase?

Instructional Item 2

A table below shows the costs of items at a candy store.

Item	Cost
Chocolate bar	$2.99 each
Candy rope	$0.45 per ounce
Peanut butter cups	$1.50 each
Bubble gum	$0.29 per ounce

Wayne has $10 to spend. Select all the purchases that Wayne has enough money to make.

a. 3 chocolate bars
b. 25 ounces of candy rope
c. 2 chocolate bars and 3 peanut butter cups
d. 3 peanut butter cups and 5 ounces of bubble gum
e. 24 ounces of bubble gum and 2 ounces of candy rope

Achievement Level Descriptors:

Benchmark	Context	Assessment Limits
MA.5.M.2.1 Solve multi-step real-world problems involving money using decimal notation. Example: Don is at the store and wants to buy soda. Which option would be cheaper: buying one 24-ounce can of soda for $1.39 or buying two 12-ounce cans of soda for 69¢ each?	Real-world	Items involving only addition and subtraction are limited to at least three procedural steps.

ALD 2	ALD 3	ALD 4	ALD 5
Solves one-step real-world problems involving money using decimal notation with multiplication or division	Solves two-step real-world problems involving money using decimal notation with at least one step including multiplication or division	Solves multi-step real-world problems involving money using decimal notation.	Identifies an error and solves multi-step real-world problems involving money using decimal notation.

Additional Resources:

Blog Post: Helping students problem solve instead of "number shopping"

Video: Using the four operations to solve multi-step word problems and practice

Khan Academy: Multi-step Estimation Word Problems

Khan Academy: Represent Multi-step Word Problems Using Equations

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Resources/Tasks to Support Your Child at Home:

Khan Academy: Adding Decimals to Hundredths

Khan Academy: Subtracting Decimals to Hundredths