



Math Madness

Sample problem

Student _____
Team _____
Score _____ Classroom _____

Kerry has four quarters, two dimes, and five nickels. She wants to buy a stuffed animal that costs \$2.50.

Part A

How much more money does she need to buy the stuffed animal?

ANSWER BOX: (Score: 0 or 1)

A. _____

Part B

Bracelets cost \$1.50 less than stuffed animals. If Kerry's sister buys two stuffed animals and a bracelet, how much money will she need to spend?

ANSWER BOX: (Score: 0 or 1)

B. _____

Part C

Kerry's friend decides she wants to buy some items also. She owes the cashier \$2.35 for her toys and \$0.85 for a neat pencil. If she gives the cashier a \$5 bill, how much money will she receive as change?

Write your answer in the ANSWER BOX . (Score: 0 or 1) EXPLAIN the steps you used to find the correct change. (Score: 0 or 1)	
_____ _____ _____ _____ _____	
_____ _____	ANSWER BOX: _____

For Scoring Only!

Specific Eligible Content addressed by this item:

- M3.A.1.3.1 Count a collection of bills and coins less than \$5.00
- M3.A.1.3.2 Compare total values of combinations of coins less than \$5.00
- M3.A.1.3.3 Make change for an amount up to \$5.00 with no more than \$2.00 change given

Score	In response to this item, the student-
4	provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor "blemish" or omission in work or explanation that does not detract from demonstrating a <i>thorough</i> understanding.
3	provides a response and explanation that are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a <i>general</i> understanding.
2	provides a response that is somewhat correct with <i>partial</i> understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.
1	demonstrates minimal understanding of the mathematical concepts and procedures required by the task.
0	The response has given no correct answer and insufficient evidence to demonstrate any understanding of the mathematical concepts and procedures as required by the task. Response may show only information copied from the question.

Math Madness, Sample Problem Sample Solution

Kerry has four quarters, two dimes, and five nickels. She wants to buy a stuffed animal that costs \$2.50.

Part A

How much more money does she need to buy the stuffed animal?

ANSWER BOX: (Score: 0 or 1)

A. \$1.05

$$4 \text{ quarters: } \$0.25 + \$0.25 + \$0.25 + \$0.25 = \$1.00$$

$$2 \text{ dimes: } \$0.10 + \$0.10 = \$0.20$$

$$5 \text{ nickels: } \$0.05 + \$0.05 + \$0.05 + \$0.05 + \$0.05 = \$0.25$$

$$\text{Total: } \$1.00 + \$0.20 + \$0.25 = \$1.45$$

$$\text{Difference: } \$2.50 - \$1.45 = \$1.05$$

Part B

Bracelets cost \$1.50 less than stuffed animals. If Kerry's sister buys two stuffed animals and a bracelet, how much money will she need to spend?

ANSWER BOX: (Score: 0 or 1)

B. \$6.00

$$\text{Bracelet: } \$2.50 - \$1.50 = \$1.00$$

$$2 \text{ stuffed animals \& bracelet: } \$2.50 + \$2.50 + \$1.00 = \$6.00$$

Math Madness, Sample Problem Sample Solution

Part C

Kerry's friend decides she wants to buy some items also. She owes the cashier \$2.35 for her toys and \$0.85 for a neat pencil. If she gives the cashier a \$5 bill, how much money will she receive as change?

Cost: $\$2.35 + \$0.85 = \$3.20$

Change: $\$5.00 - \$3.20 = \$1.80$

Write your answer in the **ANSWER BOX**. (Score: 0 or 1)

EXPLAIN the steps you used to find the correct change. (Score: 0 or 1)

First, I added the cost of the toys and the pencil. My total sum was \$3.20. This means she owes the cashier \$3.20. Next, I saw that she gave the cashier \$5.00. To find the change, I needed the difference of those two amounts. I subtracted \$3.20 from \$5.00 to find the difference of \$1.80. The cashier needs to give her \$1.80 back as change.

ANSWER BOX:

\$1.80

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M3.A.1.3.1 Count a collection of bills and coins less than \$5.00

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M3.A.1.3.3 Make change for an amount up to \$5.00 with no more than \$2.00 change given

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