



**Mathematics Grade 4  
Scoring Guide for  
Released Item #58  
Katrina Buys Pencils and a Notebook  
Fall 2005**



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**MATHEMATICS – GRADE 4: PART 4****FALL 2005**

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**(4 points)**

Katrina buys 2 pencils that cost \$0.25 each and 1 notebook that costs \$2.50.

- A** Draw a picture of the items that Katrina buys.
- B** Use correct math words to tell how Katrina can find the cost of the things she buys.
- C** Write a number sentence to find the total cost of the things Katrina buys.
- D** What is the total cost of the items that Katrina buys?

**ANSWER THIS ITEM IN YOUR ANSWER FOLDER.**

**SHOW ALL YOUR WORK IN YOUR ANSWER FOLDER.**

## Mathematics Rubric for the Katrina Buys Pencils and a Notebook

- **1 point** for a picture of 2 pencils and 1 notebook.
- **1 point** for correct math words (e.g., add, combine, double, plus, sum).
- **1 point** for a complete and correct number sentence (e.g.,  $.25+.25+2.50=$ \_\_\_\_), written horizontally or vertically.
- **1 point** for the correct total cost (\$3.00). Must include correct label.

**Note 1:** Math words used cannot be contradictory.

**Note 2:** If the number sentence attempted in a response is given as an expression ( $.25+.25+2.50$ ) or is not true, it is not complete and correct and credit for a number sentence is not awarded.

A **4-point** response includes all four points.

A **3-point** response includes three points.

A **2-point** response includes two points.

A **1-point** response includes one point.

A **0-point** response shows insufficient understanding of the item being tested.

**Condition codes for unratable papers (zeroes):**

A – Off Topic

B – Written in a Language other than English or Illegible

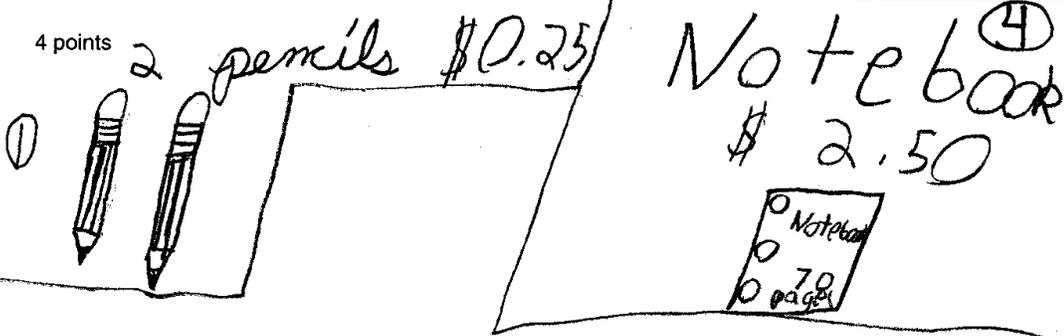
C – Blank or Refusal to Respond

Sample Paper 1 – Score Point 4

AI

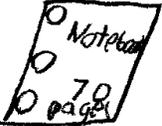
4 points

2 pencils \$0.25



Notebook (4)

\$ 2.50



② Katrina will add the cost of the three items together.

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③  $\$0.25 + \$0.25 + \$2.50 = \$3.00$

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④ The total cost of the items put together is \$3.00.

C25
STOP: DO NOT GO ON UNTIL TOLD TO DO SO.

Sample Paper 1  
Score Point 4

The response demonstrates complete understanding of the task by providing all four correct and complete parts.

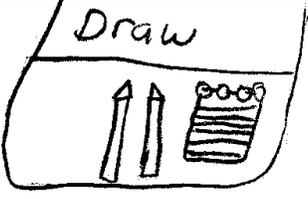
- The response has a correctly drawn picture of two pencils and one notebook. (1 point)
- The response uses correct math words (*add*) to describe how Katrina can find the cost (*Add the cost of the three items together*). (1 point)
- The response has a correct and complete number sentence ( $\$0.25 + \$0.25 + \$2.50 = \$3.00$ ). (1 point)
- The response has the correct total cost ( $\$3.00$ ). (1 point)

The response earns **4 points**.

Sample Paper 2 – Score Point 4

4 points

Draw



A2  
4

number sentence

$$\begin{array}{r} 0.25 \\ 0.25 \\ +2.50 \\ \hline 3.00 \end{array}$$

write words

total cost

\$3.00

DI

STOP. DO NOT GO ON UNTIL TOLD TO DO SO.

Sample Paper 2  
Score Point 4

The response demonstrates complete understanding of the task by providing all four correct and complete parts.

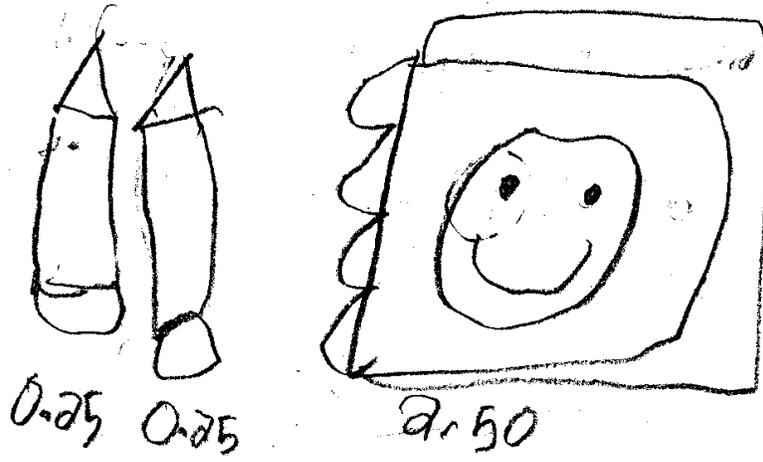
- The response has a correctly drawn picture of two pencils and one notebook. (1 point)
- The response uses correct math words (*plus*) to describe how Katrina can find the cost (*twenty-five cents plus twenty-five cents plus two dollars fifty cents equals three dollars*). (1 point)
- The response has a correct and complete vertical number sentence that equals \$3.00. (1 point)
- The response has the correct total cost (\$3.00). (1 point)

The response earns 4 points.

Sample Paper 3 – Score Point 4

A3  
④

4 points



She can add the cost of the items.

$$\begin{array}{r}
 1 \\
 2.50 \\
 + \quad 50 \\
 \hline
 \$3.00
 \end{array}$$

Sample Paper 3  
Score Point 4

The response demonstrates complete understanding of the task by providing all four correct and complete parts.

- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response uses correct math words (*add*) to describe how Katrina can find the cost (*She can add the cost of the items*). **(1 point)**
- The response has a correct and complete vertical number sentence that equals \$3.00. Note that in a vertical number sentence it is sufficient to write some of the numbers without decimal points as long as they are lined up appropriately with the decimal point in the answer. **(1 point)**
- The response has the correct total cost (\$3.00). **(1 point)** Note that the \$3.00 found in the number sentence can also be used for providing the correct total cost.

The response earns **4 points**.

Sample Paper 4 – Score Point 3

3

4 points

50¢




she can add them together and find the product.

250¢



75 Pages

$50 + \$2.50 = \square$

The total cost is \$3.00 plus tax.

Sample Paper 4  
Score Point 3

The response demonstrates understanding of the task by providing three correct and complete parts.

- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response uses an incorrect math word (*product*) to describe how Katrina can find the cost (*She can add them together and find the product*). The words are contradictory because adding them together results in the sum, not the product. **(0 points)**
- The response has a correct and complete number sentence ( $50 + \$2.50 = \square$ ). **(1 point)** Note that an empty box is appropriate in a 4<sup>th</sup> grade number sentence.
- The response has the correct total cost (\$3.00). **(1 point)** Note that “plus tax” does not detract from demonstrating a complete understanding of the task. The prompt does not mention whether tax is included or not.

The response earns **3 points**.

## Sample Paper 5 – Score Point 3

4 points

\$3.00

A5  
③

Katrina could add the prices together  
to get the sum.



$$25 + 25 + 2.50 = 3.00$$

**Sample Paper 5**  
**Score Point 3**

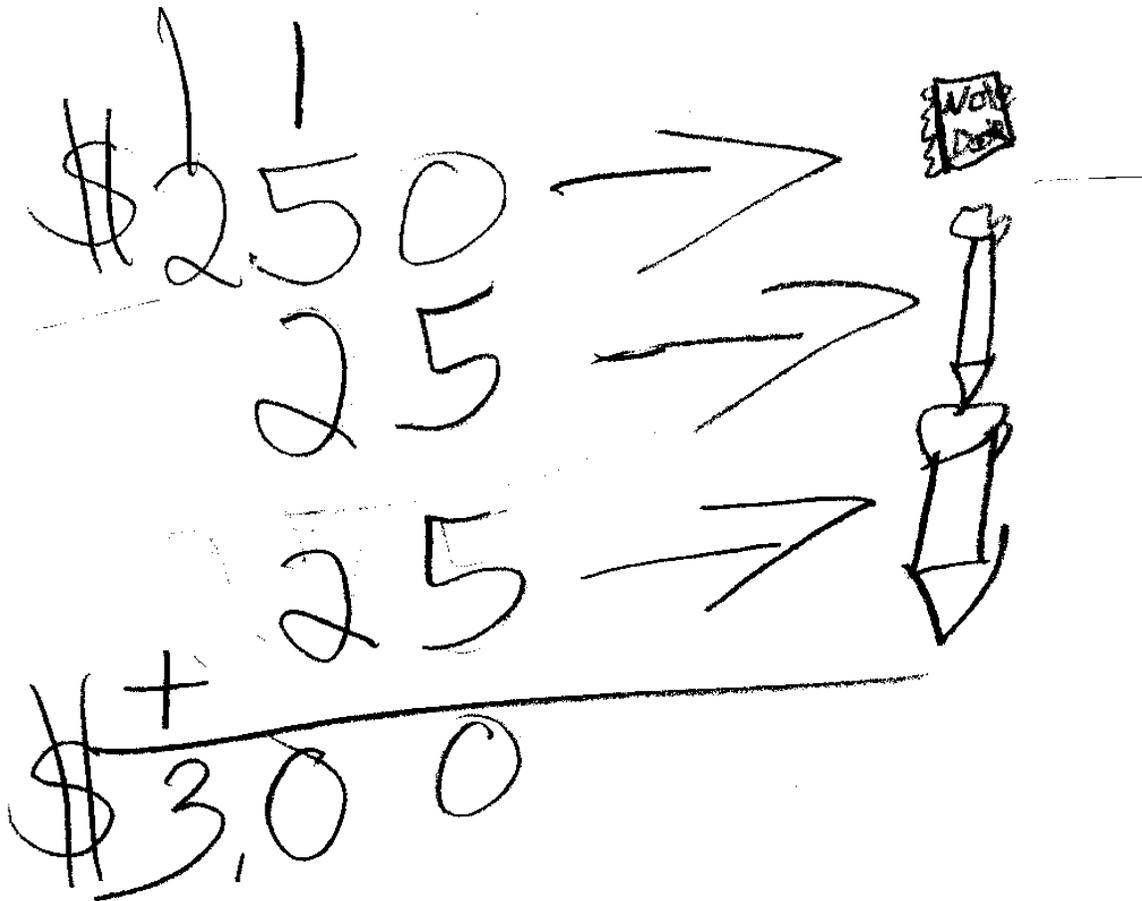
The response demonstrates understanding of the task by providing three correct and complete parts.

- The response does not have a correctly drawn picture. Only two pencils are shown. **(0 points)**
- The response uses correct math words (*add*) to describe how Katrina can find the cost (*Add the prices together to get the sum*). **(1 point)**
- The response has a correct and complete number sentence ( $25¢ + 25¢ + \$2.50 = \$3.00$ ). **(1 point)**
- The response has the correct total cost ( $\$3.00$ ). **(1 point)** Note that the  $\$3.00$  found in the number sentence can also be used for providing the correct total cost.

The response earns **3 points**.

Sample Paper 6 – Score Point 3

4 points



Sample Paper 6  
Score Point 3

The response demonstrates understanding of the task by providing three correct and complete parts.

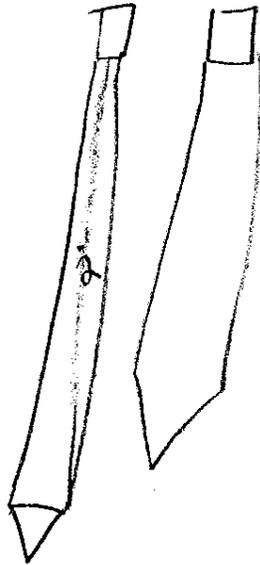
- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response does not use any words to tell how Katrina can find the cost of the things she buys. **(0 points)**
- The response has a correct and complete vertical number sentence that equals \$3.00. Note that in a vertical number sentence it is sufficient to write some of the numbers without decimal points as long as they are lined up appropriately with the decimal point in the answer. **(1 point)**
- The response has the correct total cost (\$3.00). **(1 point)** Note that the \$3.00 found in the number sentence can also be used for providing the correct total cost.

The response earns **3 points**.

Sample Paper 7 – Score Point 2

4 points

A7  
②



twice Katrina could sum .25¢  
with \$2.50 and add them  
together and get  
the price of 3.00.

Sample Paper 7  
Score Point 2

The response demonstrates partial understanding of the task by providing two correct and complete parts.

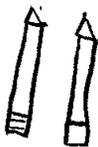
- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response uses correct math words (*add*) to describe how Katrina can find the cost (*and add them together*). **(1 point)**
- The response does not have a number sentence. **(0 points)**
- The response has a total cost (3.00), but no dollar sign or equivalent label is provided. **(0 points)**

The response earns **2 points**.

Sample Paper 8 – Score Point 2

4 points

A8  
②

1  0.50 cent

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2 Katrina buys 2 pencils = each cost 25 cent  
and one notebook that cost \$2.50

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3 
$$\begin{array}{r} 2.50 \\ 0.50 \\ \hline 3.00 \end{array}$$

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4 \$3.00

Sample Paper 8

Score Point 2

The response demonstrates partial understanding of the task by providing two correct and complete parts.

- The response does not have a correctly drawn picture. Only two pencils are shown. **(0 points)**
- The response does not use any correct math words to describe how Katrina can find the cost. The response contains only information copied from the prompt. **(0 points)**
- The response has a vertical number sentence that equals 3.00 **(1 point)** Note that because the correct total is provided, the addition operation is assumed for “2.50” and “.50”. This only applies to vertical number sentences.
- The response has the correct total cost (\$3.00). **(1 point)**

The response earns **2 points**.

## Sample Paper 9 – Score Point 2

4 points

$$\begin{array}{r} \$0.25 \\ \times \quad 2 \\ \hline \$0.50 \\ + \$2.50 \\ \hline \$3.00 \end{array}$$

Sample Paper 9  
Score Point 2

The response demonstrates partial understanding of the task by providing two correct and complete parts.

- The response does not have a correctly drawn picture. **(0 points)**
- The response does not use any math words to describe how Katrina can find the cost. **(0 points)**
- The response has a correct and complete vertical number sentence that equals \$3.00. **(1 point)**
- The response has the correct total cost (\$3.00). **(1 point)** Note that the \$3.00 found in the number sentence can also be used for providing the correct total cost.

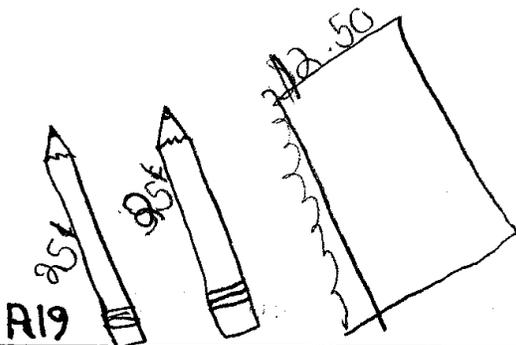
The response earns **2 points**.

Sample Paper 10 – Score Point 2

4 points

(2)

Katrina buy 2 pencils and a notebook  
 Each pencil costs 25¢ each and the  
 notebook costed 2.50. I know that  
 $25¢ + 25¢$  equals 1.00. 1.00 plus  
 2.50 equals 3.50. First I put  
 25¢ plus 25¢ and of course  
 that would be a dollar. Then  
 I added 1.00 plus 2.50  
 which equals 3.50. 3.50 is the  
 total amount.



STOP. DO NOT GO ON UNTIL TOLD TO DO SO.

Sample Paper 10  
 Score Point 2

The response demonstrates partial understanding of the task by providing two correct parts.

- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response uses correct math words (*add*) to describe how Katrina can find the cost (*Then I added 1.00 plus 2.50 which equals 3.50*). **(1 point)** Note that although the 1.00 is incorrect, the math words are still used correctly.
- The response does not have a number sentence. **(0 points)**
- The response has an incorrect total cost (3.50), and is missing the dollar sign label. **(0 points)**

The response earns **2 points**.

Sample Paper 11 – Score Point 1

4 points

All  
①



$$\begin{array}{r}
 \$2.50 \\
 + 0.25 \\
 \hline
 \$2.75
 \end{array}$$

Katrina could use a calculator to find the cost of the items she buys.

The total cost of the items that Katrina buys is \$2.75.

Sample Paper 11  
Score Point 1

The response demonstrates some understanding of the task by providing one correct and complete part.

- The response has a correctly drawn picture of two pencils and one notebook. **(1 point)**
- The response does not use any correct math words to describe how Katrina can find the cost (*Katrina could use a calculator to find the cost*). **(0 points)**
- The response has an incorrect vertical number sentence that equals \$2.75. **(0 points)** The response adds the cost of only one pencil to the cost of the notebook.
- The response has an incorrect total cost (\$2.75). **(0 points)**

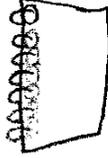
The response earns **1 point**.

Sample Paper 12 – Score Point 1

4 points



↑  
pencil



$$\begin{array}{r}
 \$2.50 \\
 + 0.25 \\
 \hline
 \$2.75
 \end{array}$$

A12  
①

The total cost is \$2.75.  
She can do two dollars fifty cents plus  
twenty five cents.

Sample Paper 12  
Score Point 1

The response demonstrates some understanding of the task by providing one correct and complete part.

- The response does not have a correctly drawn picture. One pencil is missing. **(0 points)**
- The response uses correct math words (*plus*) to describe how Katrina can find the cost (*She can do two dollars fifty cents plus twenty five cents*). **(1 point)** Note that although the numbers are incorrect, the math words are still used correctly.
- The response has an incorrect vertical number sentence that equals \$2.75. **(0 points)** The response adds the cost of only one pencil to the cost of the notebook.
- The response has an incorrect total cost (\$2.75). **(0 points)**

The response earns **1 point**.

## Sample Paper 13 – Score Point 1

4 points

1

if Katrina adds  $25 + 250$  she  
will get  $\$2.75$ .

## Sample Paper 13

## Score Point 5

The response demonstrates some understanding of the task by providing one correct part.

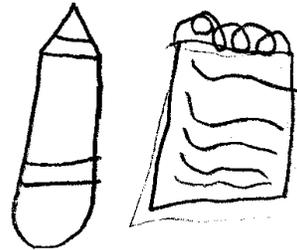
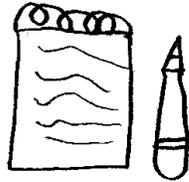
- The response does not have a picture. **(0 points)**
- The response uses correct math words (*adds*) to describe how Katrina can find the cost (*If Katrina adds  $25 + 250$  she will get  $\$2.75$* ). **(1 point)** Note that although the numbers are incorrect, the math words are still used correctly.
- The response does not have a number sentence. **(0 points)**
- The response has an incorrect total cost ( $\$2.75$ ). **(0 points)**

The response earns **1 point**.

Sample Paper 14 – Score Point 0

4 points

A14  
O



$$\begin{array}{r} 25 \\ +25 \\ \hline 50 \end{array}$$

$$\begin{array}{r} 250 \\ +250 \\ \hline 500 \end{array}$$

You put 250 down 2 times  
and you get 500 put 25 down  
2 times and you get 50 and  
 $500+50=550$  so the total is  
\$5.50.

Sample Paper 14  
Score Point 0

The response demonstrates insufficient understanding of the task.

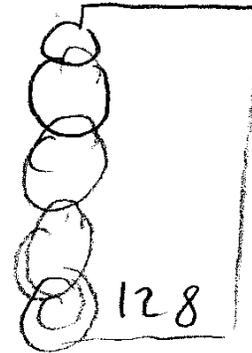
- The response does not have a correctly drawn picture. An extra notebook is included. **(0 points)**
- The response uses an incorrect math word (*put*) to describe how Katrina can find the cost (*You put 250 down 2 times and you get 500, put 25 down 2 times and you get 50 and  $500 + 50 = 550$* ). **(0 points)** Note that using the word “plus” is an acceptable math word but the plus sign (+) in “ $500 + 50 = 550$ ” is not.
- The response has two incorrect vertical number sentences. **(0 points)**
- The response has an incorrect total cost (\$5.50). **(0 points)**

The response earns **0 points**.

Sample Paper 15 – Score Point 0

4 points

A15  
O



Kabrina spent three dollars an  
twenty five cents on the pencils that costed  
twenty five cents and the notebook which  
costed two dollars fifty cents.

Sample Paper 15  
Score Point 0

The response demonstrates insufficient understanding of the task.

- The response does not have a correctly drawn picture. There is only one pencil. **(0 points)**
- The response uses an incorrect math word (*costed*) (*Katrina spent three dollars an twenty five cents on the pencils that costed twenty five cents and the notebook which costed two dollars fifty cents*). This also fails to tell how to find the cost. **(0 points)**
- The response does not have a number sentence. **(0 points)**
- The response has an incorrect total cost (*three dollars and twenty five cents*). **(0 points)**

The response earns **0 points**.