



Math
Spring Operational 2015

Grade 5
PBA Item # 16
Cost of Paper, Wood, and
String VF646620

Prompt

Use the information provided to answer Part A and Part B for question 5.

Maria bought wood, paper, and string to make one kite. The list shows the amount and the unit cost of each item she bought.

- 12 square feet of paper at \$1 per square foot
- 4 feet of wood at \$3 per foot
- 14 yards of string at \$2 per yard

5. Part A

What was the total cost of the items Maria bought? Show all the steps you took to find your answer. Be sure to label your answer.

Part B

Maria will make 4 more kites for her friends. Determine how much paper, wood, and string are needed and the total cost to make the 4 kites. Show all the steps you took to find your answer. Be sure to label your answer.

Rubric

Task is worth a total of 6 points.

VF646620 Rubric Part A

Score	Description
3	<p>Student response includes the following 3 elements.</p> <ul style="list-style-type: none"> • Computation component = 1 point <ul style="list-style-type: none"> ○ Correct total cost of the items Maria bought, \$52 • Modeling component = 2 points <ul style="list-style-type: none"> ○ The student shows all of the steps in finding the total cost. <p>Sample Student Response:</p> <p>\$52 The cost for each item is: Paper: $12 \times \\$1 = \\12 Wood: $4 \times \\$3 = \\12 String: $14 \times \\$2 = \\28</p> <p>Notes:</p> <ul style="list-style-type: none"> • Multiplication does not need to be shown as equations. • If a multiplication error occurs, the computation component is not correct. If all three multiplications are wrong, the point comes off the computation component, not from the modeling component. If the student shows three multiplication problems with correct factors, credit can be given for 1 modeling point, even though all three may have computation errors. <ul style="list-style-type: none"> • $\\$12 + \\$12 + \\$28 = \\52 <p>Notes:</p> <ul style="list-style-type: none"> • Addition does not need to be shown as an equation. • If an addition error occurs, the computation component is not correct, but the student can still receive credit for 1 modeling point if the correct addends are used in the model. <p>A single equation can be shown for both modeling and computation parts, such as: $12 \times \\$1 + 4 \times \\$3 + 14 \times \\$2 = \\52. However, the answer must have context in terms of money. If no dollar sign appears with the final answer, then no computation point can be given.</p>
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

VF646620 Rubric Part B

Score	Description
3	<p>Student response includes the following 3 elements.</p> <ul style="list-style-type: none">• Computation component = 2 points<ul style="list-style-type: none">○ Correct amount of paper, wood, and string needed for the 4 kites○ Correct total cost for the 4 kites• Modeling component = 1 point<ul style="list-style-type: none">○ The student shows all of the steps in finding the answers. <p>Sample Student Response:</p> <p>48 square feet of paper, 16 feet of wood, 56 yards of string \$208 Amount of Paper: $12 \times 4 = 48$ Amount of Wood: $4 \times 4 = 16$ Amount of String: $14 \times 4 = 56$</p> <p>Cost of Paper: $48 \times 1 = 48$ Cost of Wood: $16 \times 3 = 48$ Cost of String: $56 \times 2 = 112$ $48 + 48 + 112 = 208$ Or any other valid process.</p> <p>Note: A correctly computed total cost in Part B that is based on an incorrect cost in Part A should receive credit.</p>
2	Student response includes 2 of the 3 elements.
1	Student response includes 1 of the 3 elements.
0	Student response is incorrect or irrelevant.

Anchor Set
A1 – A14

Part A

She spent \$52 total

$$\begin{array}{r} 12 \quad 4 \quad 14 \\ \times 11 \quad \times 3 \quad \times 2 \\ \hline 12 \quad 12 \quad 28 \\ \hline 24 \end{array}$$

Part B

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array} \text{ square feet of paper}$$
$$\begin{array}{r} 4 \\ \times 4 \\ \hline 16 \end{array} \text{ feet of wood}$$
$$\begin{array}{r} 14 \\ \times 4 \\ \hline 56 \end{array} \text{ yards of string}$$
$$\begin{array}{r} \$52 \\ \times 4 \\ \hline \$208 \end{array} \text{ as the total cost}$$

48 square feet of paper
16 feet of wood
56 yards of string
\$208 as the total cost

Annotations

Anchor Paper 1

Part A: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$).

Modeling

- The multiplication used to find the cost of each item is shown ($12 \times 1 = \$12$, $4 \times 3 = \$12$, $14 \times 2 = \$28$).
- The addition of the cost of each item to find the total cost to make 1 kite is shown ($\$12 + \$12 + \$28 = \52).

Part B: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 square feet of paper, 16 feet of wood, 56 yards of string*).
- Total cost to make 4 kites is correctly computed ($\$208$).

Modeling

- The student shows the correct steps to determine the answers. The multiplication used to find the amount of paper ($12 \times 4 = 48$), wood ($4 \times 4 = 16$), string ($14 \times 4 = 56$), and the method to find the total cost by multiplying the cost of 1 kite with the quantity ($\$52 \times 4 = \208) is shown.

Part A

1. $12 \times 1 = 12$

2. $4 \times 3 = 12$

3. $14 \times 2 = 28$

4. $12 + 12 + 28 = 52$

5. total = \$52.00

Part B

Paper = 48 square feet

wood = 16 feet

string = 56 yards

1. $12 \times 4 = 48$

2. $4 \times 4 = 16$

3. $14 \times 4 = 56$

4. $48 \times 1 = 48$

5. $16 \times 3 = 48$

6. $56 \times 2 = 112$

7. $48 + 48 + 112 = \$208$

Annotations

Anchor Paper 2

Part A: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$).

Modeling

- The multiplication used to find the cost of each item is shown ($12 \times 1 = 12$, $4 \times 3 = 12$, $14 \times 2 = 28$).
- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = 52$).

Part B: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*paper = 48 square feet, wood = 16 feet, string = 56 yards*).
- Total cost to make 4 kites is correctly computed ($\$208$).

Modeling

- The student shows the correct steps to determine the answers. The multiplication used to find the amount of paper ($12 \times 4 = 48$), wood ($4 \times 4 = 16$), and string ($14 \times 4 = 56$) and the method to find the total cost by adding the costs of all the materials ($48 \times 1 = 48$, $16 \times 3 = 48$, $56 \times 2 = 112$; $48 + 48 + 112 = \$208$) is shown.

Part A

$$12 \times 1 = 12$$

$$4 \times 3 = 12$$

$$14 \times 2 = 28$$

$$\begin{array}{r} 12 \\ 12 \\ + 28 \\ \hline \end{array}$$

52 Part A

12 12 28

12 x 1 = 12

12 x 1 = 12

12 x 1 = 12

12 x 1 = 12

48

4 x 3 = 12

4 x 3 = 12

4 x 3 = 12

4 x 3 = 12

48

14 x 2 = 28

14 x 2 = 28

14 x 2 = 28

14 x 2 = 28

112

Part B

$$\begin{array}{r} 112 \\ 48 \\ + 48 \\ \hline \end{array}$$

208

Part B

12 x 1 = 12

12 x 1 = 12

12 x 1 = 12

12 x 1 = 12

48

4 x 3 = 12

4 x 3 = 12

4 x 3 = 12

4 x 3 = 12

48

14 x 2 = 28

14 x 2 = 28

14 x 2 = 28

14 x 2 = 28

112

56 yards of string

48 square feet of paper

16 feet of wood

Annotations

Anchor Paper 3

Part A: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$).

Modeling

- The multiplication used to find the cost of each item is shown ($12 \times 1 = 12$, $4 \times 3 = 12$, $14 \times 2 = 28$).
- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = \$52$).

Part B: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 square feet of paper, 16 feet of wood, 56 yards of string*).

Modeling

- The student shows the correct steps to determine the answers. The multiplications used to find the amount of paper ($12 \times 4 = 48$), wood ($4 \times 4 = 16$), and string ($14 \times 4 = 56$) and the method to find the total cost by adding the costs of all the materials ($112 + 48 + 48 = 208$) are shown.

Even though the total cost of making 4 kites it is correctly calculated (208), the response does not receive credit for Computation Part 2 because the final answer does not include the label [\$].

Part A The total cost of the items Maria bought was \$52.

$$\begin{array}{r}
 \$12 + \$12 + \$28 = \\
 \text{cost} \quad \text{cost} \quad \text{cost} \\
 \text{for paper} \quad \text{for wood} \quad \text{for string} \\
 \hline
 \textcircled{1} \\
 \begin{array}{r}
 924 \text{ cost} \\
 +928 \text{ cost} \\
 \hline
 \textcircled{1852} \text{ spent}
 \end{array}
 \end{array}$$

I first need to find the cost of each item (\$12, \$12, \$28). I then added the two \$12 together to get \$24. Finally, I added \$24 with \$28 to make \$52.

Part B Maria needs 48 sq. ft. of paper, 16 ft. of wood, and 56 yds. of string, which cost \$208 total.

$$\begin{array}{r}
 \begin{array}{r}
 12 \\
 \times 4 \\
 \hline
 48 \\
 \text{sq. ft. of paper}
 \end{array}
 \quad
 \begin{array}{r}
 4 \\
 \times 4 \\
 \hline
 16 \\
 \text{ft. of wood}
 \end{array}
 \quad
 \begin{array}{r}
 0 \\
 14 \\
 \times 4 \\
 \hline
 56 \text{ yds. of string}
 \end{array}
 \quad
 \begin{array}{r}
 \$52 \text{ 1 kite cost} \\
 \times 4 \text{ kites} \\
 \hline
 \$208 \text{ cost}
 \end{array}
 \end{array}$$

I first multiplied the amount of paper, wood, and string by 4 each to get 48 sq. ft. of paper, 16 ft. of wood, and 56 yds. of string. I then multiplied the cost for 1 kite (\$52) by 4, getting \$208.

Annotations

Anchor Paper 4

Part A: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$).

Modeling

- The addition of the cost of each item to find the total cost to make 1 kite is shown ($\$12 + \$12 + \$28 = \52).

The multiplication used to find the cost of each item is not shown.

Part B: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 sq. ft. of paper, 16 ft. of wood, 56 yds of string*).
- Total cost to make 4 kites is correctly computed ($\$208$).

Modeling

- The student shows the correct steps to determine the answers. The multiplication used to find the amount of paper ($12 \times 4 = 48$), wood ($4 \times 4 = 16$), string ($14 \times 4 = 56$), and the method to find the total cost by multiplying the cost of 1 kite with the quantity ($\$52 \times 4 = \208) is shown.

Part A: Score Point 2

Part B: Score Point 2

Part A

$$\begin{array}{r} 12 \\ +12 \\ +28 \\ \hline \end{array}$$

\$52 dollars of all the items she bought.

Part B

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \text{ feet of paper} \\ 16 \text{ ft of wood} \\ 56 \text{ yd of string} \end{array} \begin{array}{r} 52 \\ +52 \\ +52 \\ 52 \\ \hline \end{array}$$

\$208 dollars it will cost for 4 hites

Annotations

Anchor Paper 5

Part A: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$).

Modeling

- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = \$52$).

The multiplication used to find the cost of each item is not shown.

Part B: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 feet of paper, 16 ft of wood, 56 yd of string*).
- Total cost to make 4 kites is correctly computed ($\$208$).

Even though the method to find the total cost by adding the cost of 1 kite 4 times is shown ($52 + 52 + 52 + 52 = \$208$), the multiplication used to find the amount of each item is not included, hence the response does not receive credit for Modeling.

Part A

$$\begin{array}{r} 12 \\ \times 1 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 14 \\ \times 2 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 12 \\ +12 \\ \hline 24 \\ +28 \\ \hline 52 \end{array}$$

She spent 52 dollars in total.

Part B

$$\begin{array}{r} 12 \\ \times 1 \\ \hline 12 \end{array}$$



$$\begin{array}{r} 4 \\ \times 3 \\ \hline 12 \end{array}$$

$$\begin{array}{r} 14 \\ \times 2 \\ \hline 28 \end{array}$$

$$\begin{array}{r} 12 \\ +12 \\ \hline 24 \\ +28 \\ \hline 52 \end{array}$$

She needs 208.

$$\begin{array}{r} 52 \\ \times 4 \\ \hline 208 \\ \hline \end{array}$$

Annotations

Anchor Paper 6

Part A: Score Point 3

This response receives full credit. The student includes each of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($\$52$. . . 52 dollars).

Modeling

- The multiplication used to find the cost of each item is shown ($12 \times 1 = 12$, $4 \times 3 = 12$, $14 \times 2 = 28$).
- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 = 24$, $24 + 28 = \$52$).

Part B: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost to make 4 kites is correctly computed ($\$208$).

The student does not determine how much paper, wood, and string are needed to make 4 kites. Even though the method to find the total cost by multiplying the cost of 1 kite by quantity is shown ($52 \times 4 = \$208$), the multiplication used to find the amount of each item is not provided.

Part A

The total cost of the items Maria bought was \$52.00

First, I multiplied the amount of that item, times the cost. I repeated this for each item until I got the product for all of them.

Next, I added all the products together and I got \$52.00.

Part B

Maria will need 48 square feet of paper, 16 feet of wood, and 56 yds. of string. All together, this will cost Maria \$208.00!

Annotations

Anchor Paper 7

Part A: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed (\$52).

The multiplication used to find the cost of each item is not shown.

The addition of the cost of each item to find the total cost to make 1 kite is not shown.

Part B: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 square feet of paper, 16 feet of wood, 56 yds. of string*).
- Total cost to make 4 kites is correctly computed (\$208).

The process to determine the answers is not provided.

Part A

$$\begin{array}{r} 121 \\ + 122 \\ \hline 243 \\ \hline 524 \\ \hline \end{array}$$

Part B

$$\begin{array}{r} 52 \\ \times 4 \\ \hline 208 \\ \hline \end{array}$$

Annotations

Anchor Paper 8

Part A: Score Point 2

This response receives partial credit. The student includes two of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed ($52\$$).

Modeling

- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = 52\$$).

Note: It does not detract from the credit if the \$ sign is after the numeric value. It is logical to read it as verbal "dollars."

The multiplication used to find the cost of each item is not shown.

Part B: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost to make 4 kites is correctly computed ($208\$$).

Note: It does not detract from the credit if the \$ sign is after the numeric value. It is logical to read it as verbal "dollars."

The student does not determine how much paper, wood, and string are needed to make 4 kites. Even though the method to find the total cost by multiplying the cost of 1 kite by quantity is shown ($52 \times 4 = \$208$), the multiplication used to find the amount of each item is not provided.

Part A: Score Point 1

Part B: Score Point 1

Part A

The total is \$52.00. I divided all the costs and got the total for each object then added them together to get the total.

Part B

48 square feet of paper, 16 feet of wood, 56 yards of string. To get the total of supplies needed I multiplied the amount of each times u . To get the total cost I multiplied the amount of 1 kite u times to get \$258.00.

Annotations

Anchor Paper 9

Part A: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost of the items Maria bought is correctly computed (\$52).

The multiplication used to find the cost of each item is not shown. The explanation (*I divided all the costs*) is incorrect.

The addition of the cost of each item to find the total cost to make 1 kite is not shown. The explanation (*got the total for each object then added them together*) is incomplete as the numerical values are not provided.

Part B: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- The student correctly determines how much paper, wood, and string are needed to make 4 kites (*48 square feet of paper, 16 feet of wood, 56 yards of string*).

Total cost to make 4 kites is incorrect (\$258).

The process to determine the answers is not provided. The explanation (*I multiplied the amount of each times 4. To get the total cost I multiplied the amount of 1 kite 4 times*) is incomplete as the numeric values are not provided.

Part A

$$\begin{array}{r} 12 \\ + 12 \\ \hline 24 \\ \hline 52 \end{array}$$

$$52 \times 4 =$$

$$\begin{array}{r} 52 \\ + 52 \\ \hline 104 \end{array}$$

$$\begin{array}{r} 52 \\ 52 \\ \hline 104 \end{array}$$

$$\begin{array}{r} 104 \\ 104 \\ \hline 208 \end{array}$$

Total: 52

Total for her friends

$$\begin{array}{r} 208 \end{array}$$

Part B

Annotations

Anchor Paper 10

Part A: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Modeling

- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = 52$).

Even though the total cost of making 1 kite is correctly calculated (52), the response does not receive credit for the computation element because the final answer does not include the label [\$].

The multiplication used to find the cost of each item is not shown.

Part B: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost to make 4 kites is correctly computed (208).

Note: If both Part A and Part B final answers do not include \$ sign, only one point would be lost from the answer that is correct. This response has both the answers correct, so the credit is lost on Part A, but Part B receives credit for computation.

The student does not determine how much paper, wood, and string are needed to make 4 kites. Even though the method to find the total cost is shown ($52 + 52 = 104$, $104 + 104 = 208$), the multiplication used to find the amount of each item is not provided.

Part A the cost was \$6

Part B the cost for four more
is \$24

Annotations

Anchor Paper 11

Part A: Score Point 0

This response receives no credit. The student includes none of the three required elements:

The computation is incorrect ($\$6$) and the modeling using multiplication and addition are not shown.

Part B: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Computation

- Total cost of the items Maria bought is appropriate for the incorrect cost of 1 kite shown in Part A ($\$24$) as 6 multiplied by 4 equals 24.

The student does not determine how much paper, wood, and string are needed to make 4 kites.

The process to determine the answers is not provided.

A12

Part A: Score Point 1

Part B: Score Point 0

Part A

$$\begin{array}{r} \$ 12.00 \text{ Sq. Yards Feet} \\ + 12.00 \text{ Sq. Yards Feet} \\ + 28.00 \text{ Yards} \\ \hline 52.00 \text{ total} \end{array}$$

Part B

$$\begin{array}{r} 52.00 \\ - 12.00 \\ \hline 40.00 \\ - 12.00 \\ \hline 28.00 \\ - 28.00 \\ \hline \$0 \end{array}$$

Annotations

Anchor Paper 12

Part A: Score Point 1

This response receives partial credit. The student includes one of the three required elements:

Modeling

- The addition of the cost of each item to find the total cost to make 1 kite is shown ($12 + 12 + 28 = 52$).

Even though the total cost of making 1 kite it is correctly calculated (52), the response does not receive credit for the computation element because the final answer does not include the label [\$].

The multiplication used to find the cost of each item is not shown.

Part B: Score Point 0

This response receives no credit. The student includes none of the three required elements:

Total cost to make 4 kites is not provided.

The student does not determine how much paper, wood, and string are needed to make 4 kites.

The process to determine the answers is not provided. The work shown includes subtraction of the cost of each item from the total cost of making 1 kite to check the answer in Part A.

Part A

1 12 square feet of paper at
\$1 per square foot

2 4 feet of wood at \$3 per foot

3 14 yards of string at \$2 per yard

$$\begin{array}{r} 13 \\ + 17 \\ + 16 \\ \hline 36 \end{array}$$

she spent 36.00 dollars

Part B

$$\begin{array}{r} 17 \\ + 11 \\ + 20 \\ \hline 48 \end{array}$$

NOW she spent a total
amount of 48 dollars.

Annotations

Anchor Paper 13

Part A: Score Point 0

This response receives no credit. The student includes none of the three required elements:

Total cost of the items Maria bought is incorrectly computed (*36 dallors*).

Multiplication is not used and the student incorrectly adds all the numerical values in the prompt to find the incorrect answer.

Part B: Score Point 0

This response receives no credit. The student includes none of the three required elements:

Total cost to make 4 kites is incorrectly computed (*48*).

Multiplication is not used and the student demonstrates the misunderstanding by adding 4 to all the incorrect values determined in Part A and finding the incorrect total cost to make 4 kites.

Part A

①

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$

②

④

③

$$\begin{array}{r} 672 \\ + 6 \\ \hline 678 \end{array}$$

The total cost will be \$678.00.

Part B

①

24 square feet of paper for \$2 per square
 8 feet of wood at \$6 per foot

28 yards of string at \$4 per yard

③

$$\begin{array}{r} 24 \\ \times 8 \\ \hline 192 \end{array}$$

$$\begin{array}{r} 192 \\ \times 28 \\ \hline 5,376 \end{array}$$

It will cost \$5,376.00

Annotations

Anchor Paper 14

Part A: Score Point 0

This response receives no credit. The student includes none of the three required elements:

Total cost of the items Maria bought is incorrectly computed ($\$678$).

The multiplication and addition shown are incorrect.

Part B: Score Point 0

This response receives no credit. The student includes none of the three required elements:

Total cost to make 4 kites is incorrectly computed ($5,376$. . . *It will cost $\$5,376.00$*).

Multiplication shown is incorrect.

Practice Set
P101 - P105

Part A

$$\begin{array}{r} 12 \\ \times 1 \\ \hline \$12 \end{array}$$

$$\begin{array}{r} 14 \\ \times 2 \\ \hline \$28 \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \$12 \end{array}$$

$$\begin{array}{r} \$28 \\ \$12 \\ + \$12 \\ \hline \$52 \end{array}$$

Total cost of Maria's items is \$52

Part B

$$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$$

$$\begin{array}{r} 48 \\ \times 1 \\ \hline \$48 \end{array}$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 16 \\ \times 3 \\ \hline \$48 \end{array}$$

$$\begin{array}{r} \$48 \\ + \$48 \\ \hline \$208 \end{array}$$

$$\begin{array}{r} 14 \\ \times 4 \\ \hline 56 \end{array}$$

$$\begin{array}{r} 56 \\ \times 2 \\ \hline 112 \end{array}$$

She will need 48 square feet of paper, 16 feet of wood, and 56 yards of string and the total cost is \$208.

Part A

First I multiplied the cost of the supplies by how much she needed. Then I added the costs.

Maria spent 52 dollars for supplies to make a kite.

Part B

I took the cost of the supplies for one kite and multiplied it by 4.

Part A

12 square ft. = \$1 per square ft.

$\rightarrow = \$12.00 \quad 12 \times 1 = 12$

4 ft. = \$3.00 per foot, $4 \times 3 = 12$

$\rightarrow = \$12.00$

Answer: \$52.00

14 Yds. = \$2 per Yd. $\times \frac{14}{2}$

$\rightarrow = \$28.00$

$$\begin{array}{r} 12.00 \\ 12.00 \\ \hline 24.00 \end{array} \quad \begin{array}{r} 24.00 \\ 28.00 \\ \hline 52.00 \end{array}$$

Part B

Cost	How much of materials		
$\begin{array}{r} 52.00 \\ \times 4.00 \\ \hline \end{array}$	$\begin{array}{r} 12 \\ \times 4 \\ \hline 48 \end{array}$	$\begin{array}{r} 4 \\ \times 4 \\ \hline 16 \end{array}$	$\begin{array}{r} 14 \\ \times 4 \\ \hline 56 \end{array}$
\$212.00	Paper	wood	string
	48 square ft. of Paper		
	16 feet of wood		
	56 Yards of string		

Part A

Maria's total cost was $\$52$.

Part B

She will need 48 square feet of paper. Maria will also need 16 ft of wood, and 56 yards of string and it will cost \$208.

Part A

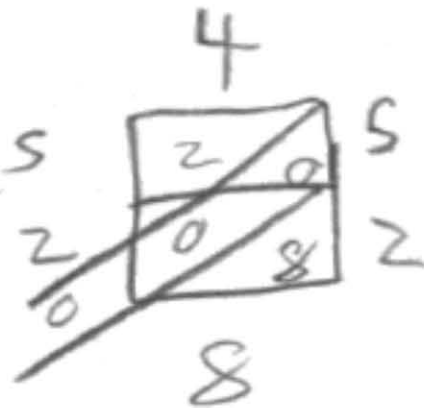
$\$12$
 $\$12$
 $\$28$

 $\$52.00$

$1 \times 12 = 12$
 $4 \times 3 = 12$
 $14 \times 2 = 28$

Part B

$\$208$ for 4 kites



Practice Set

Paper	Score
P101	3,3
P102	1,0
P103	3,2
P104	1,2
P105	3,1