SECURE MATERIAL - Reader Name: _____

Tennessee Comprehensive Assessment Program

TCAP/CRA

2014

5

Phase III

Found Treasure Task

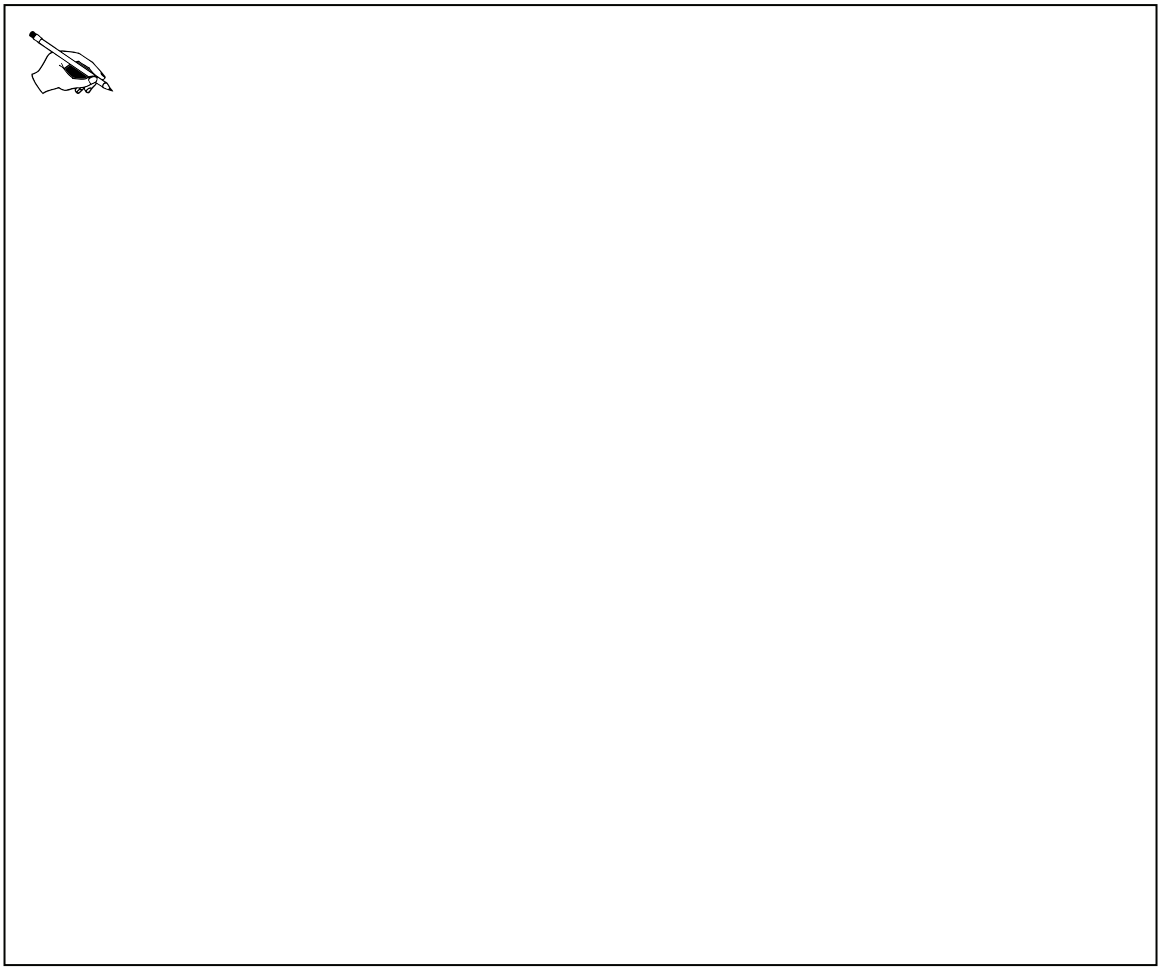
Anchor Set

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.



Found Treasure Task

The treasure's value is $3200.

b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.

c. How much of the treasure's value does Maria receive? Label your answer in dollars.

d. How much of the treasure's value does Desiree receive? Label your answer in dollars.

Scoring Guide

The CCSS for Mathematical Content (2 points)

5.NF.B.4 Calculates $\frac{1}{16}$ of 3200 as 200 for part b, $\frac{1}{8}$ of 3200 as 400 for part c, and $\frac{1}{4}$ of 3200 as 800 for part d. _____

(1 Point)

5.NF.A.1 Writes and accurately solves a subtraction equation using fractions with unlike denominators (equation does not need to correctly model the situation). _____

(1 Point)

The CCSS for Mathematical Practice (2 points)

MP1 Shows that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya, and that each of three friends receives $\frac{1}{16}$ of the treasure for a total of $\frac{3}{16}$. _____

(1 Point)
(MP1: Make sense of problems and persevere in solving them.)

MP4 Represents part a with an area model, number line, or other diagram. _____

(1 Point)
(MP4: Model with mathematics.)

TOTAL POINTS: 4

The CCSS for Mathematical Content Addressed In This Task

Use equivalent fractions as a strategy to add and subtract fractions.	
5.NF.A.1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)*
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	
5.NF.B.4	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

The CCSS for Mathematical Practice*

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

* Gray type indicates Mathematical Practices not addressed in this assessment.

A-1a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure. → 16 total → 3/16
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure. → 2/16
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure. → 4/16
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

She keeps 7/16 of the treasure for herself. 16 total pieces. James, Beth, & Tyree receive 3 pieces total. Maria gets $\frac{1}{8}$, or 2 pieces. Desiree gets $\frac{1}{4}$, or 4 pieces. So 16-3-2-4=7. Sonya gets 7/16.

$\frac{1}{16} \rightarrow \frac{1}{16} \cdot 3 = \frac{3}{16}$.

$\frac{1}{8} \rightarrow \frac{2}{16}$

$\frac{1}{4} \rightarrow \frac{4}{16}$

$\frac{16}{16} - \frac{3}{16} - \frac{2}{16} - \frac{4}{16} = \frac{7}{16}$.

She gets 7/16.

J	B	T	M	M	D	D	D
D	S	S	S	S	S	S	S

A-1b

Found Treasure Task

The treasure's value is $3200.

b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.

$\frac{1}{16} \cdot \frac{3200}{1} =$

$\frac{3200}{16} = 200$

They each get 1/16 of the total treasure, and the treasure is $3200 total, so they would get 1/16 of $3,200, which would be $200. They would get $200 worth of treasure.

c. How much of the treasure's value does Maria receive? Label your answer in dollars.

$\frac{1}{8} \cdot \frac{3200}{1} =$

$\frac{3200}{8} = 400$

Since 1/8 is twice as much as 1/16, she would receive twice as much money as James, Beth, or Tyree. So she would get $400, because 1/8 of 3,200 is 400.

d. How much of the treasure's value does Desiree receive? Label your answer in dollars.

$\frac{1}{4} \cdot \frac{3200}{1} =$

$\frac{3200}{4} = 800$

Because 1/4 is twice as much as 1/8, and 4 times as much as 1/16, she would receive 4 times as much money as James/Beth/Tyree and 2 times as much as Maria. So she would get $800.

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Total Content Points: 2 (5.NF.A.1, 5.NF.B.4)

Total Practice Points: 2 (MP1, MP4)

In Part A, the student correctly writes and accurately solves a subtraction equation using fractions with unlike denominators by replacing all fractions with equivalent fractions with like denominators $\left(\frac{16}{16} - \frac{3}{16} - \frac{2}{16} - \frac{4}{16} = \frac{7}{16}\right)$ (5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student correctly shows that the amounts given away must be subtracted from 1 whole $\left(\frac{16}{16}\right)$ to determine the fractional amount left for Sonya $\left(\frac{7}{16}\right)$, and that each of three friends receives $\frac{1}{16}$ of the treasure $\left(\frac{1}{16} \times 3 = \frac{3}{16}\right)$ (MP1). In Part A, the student accurately represents the fractional parts of the treasure that each person receives with a labeled diagram divided into sixteenths (MP4).

Total Awarded Points: 4 out of 4

A-2a

Found Treasure Task

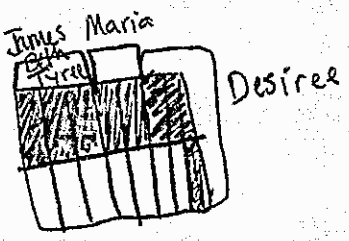
Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

$\frac{1}{4} \times 4 = \frac{4}{16}$ $\frac{1}{8} \times 2 = \frac{2}{16}$

$\frac{1}{16} + \frac{1}{16} + \frac{1}{16} + \frac{2}{16} + \frac{4}{16} = \frac{9}{16}$



$\frac{16}{16} - \frac{9}{16} = \frac{7}{16}$

I found the LCD (Least Common Denominator) for each of my fractions. The LCD was 16.

Sonya gets $\frac{7}{16}$ of the treasure.

A-2b

Found Treasure Task

The treasure's value is $3200.

b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.

I used 16 because it was the LCD of each of their parts.

$$16\overline{)3200} = 200$$

$200 EACH

c. How much of the treasure's value does Maria receive? Label your answer in dollars.

I used the answer to the division problem above. I multiplied by 2 because she got 2/16 of the treasure

$200 \times 2 = \$400$

Maria got $400.

d. How much of the treasure's value does Desiree receive? Label your answer in dollars.

I use the information above.

$\frac{4}{16}$

$200 \times 4 = 800$

Desiree receives $800.

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Total Content Points: 2 (5.NF.A.1, 5.NF.B.4)

Total Practice Points: 2 (MP1, MP4)

In Part A, the student correctly adds the fractions of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{1}{16}+\frac{1}{16}+\frac{1}{16}+\frac{2}{16}+\frac{4}{16}=\frac{9}{16}\right)$; the student then accurately subtracts that total from $\frac{16}{16}$ to find the fractional amount that Sonya keeps $\left(\frac{16}{16}-\frac{9}{16}=\frac{7}{16}\right)$ (5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student correctly shows that each of three friends receives $\frac{1}{16}$ of the treasure $\left(\frac{1}{16}+\frac{1}{16}+\frac{1}{16}\right)$, and that the amount given away must be subtracted from 1 whole $\left(\frac{16}{16}\right)$ to determine the fractional amount left for Sonya (MP1). In Part A, the student accurately represents the fractional parts of the treasure that each person receives with a labeled diagram divided into sixteenths (MP4).

Total Awarded Points: 4 out of 4

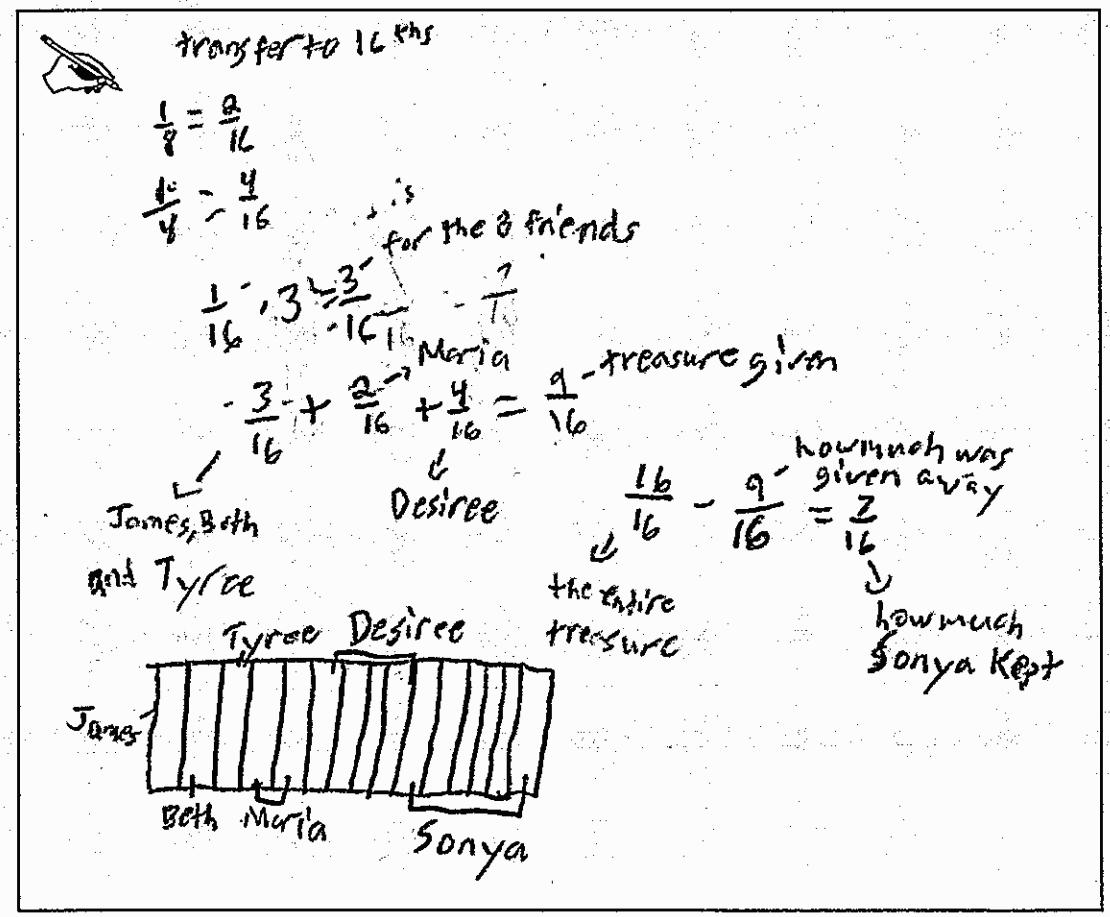
A-3a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

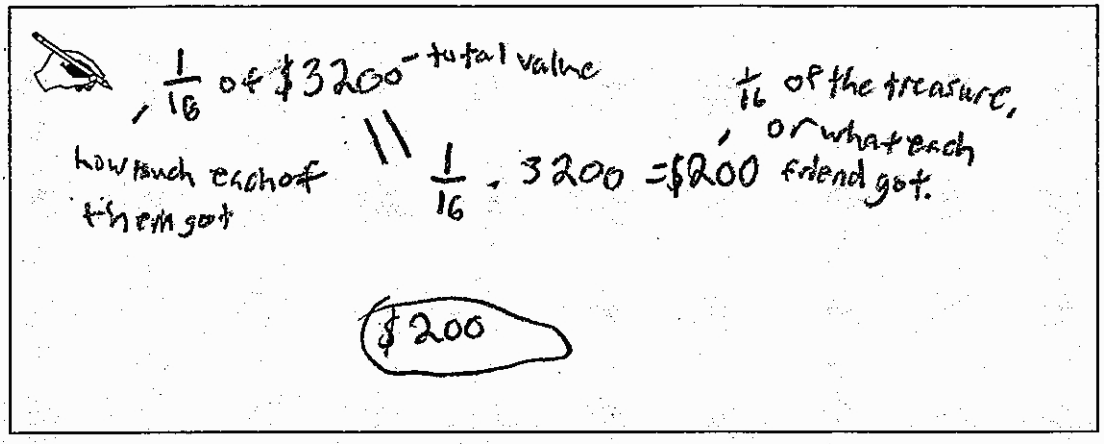


A-3b

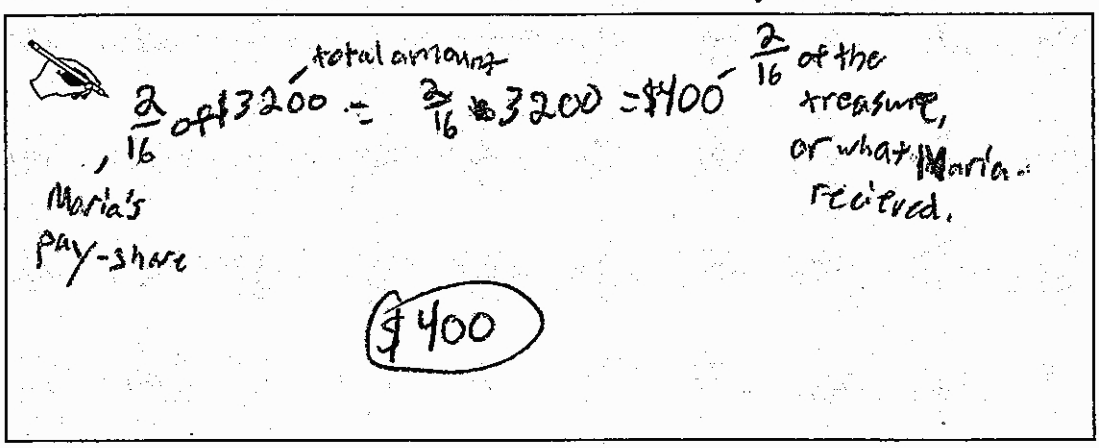
Found Treasure Task

The treasure's value is $3200.

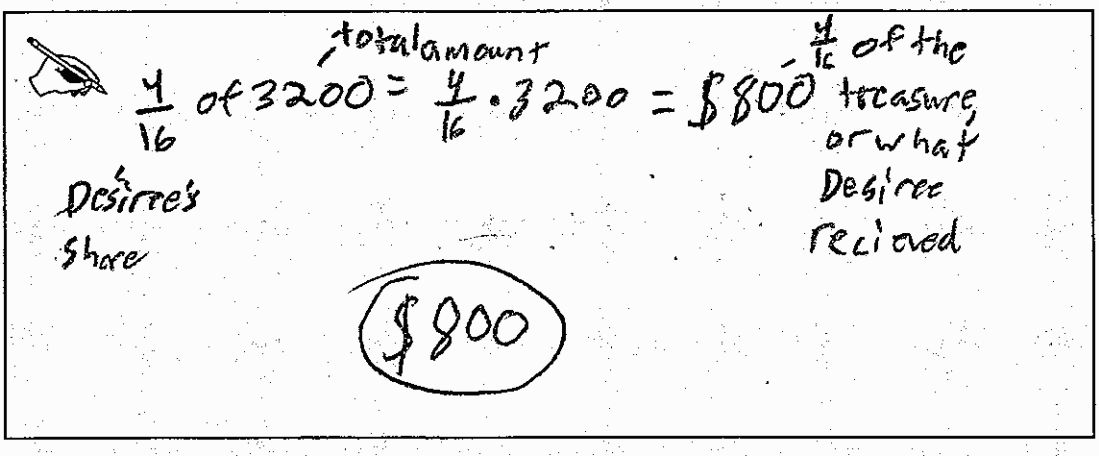
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 2 (5.NF.A.1, 5.NF.B.4)

Total Practice Points: 1 (MP1)

In Part A, the student correctly adds the fraction of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{3}{16} + \frac{2}{16} + \frac{4}{16} = \frac{9}{16}\right)$; the student then accurately subtracts that total from $\frac{16}{16}$ to find the fractional amount that Sonya keeps $\left(\frac{16}{16} - \frac{9}{16} = \frac{7}{16}\right)$ (5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student correctly shows that the amounts given away must be subtracted from 1 whole $\left(\frac{16}{16}\right)$ to determine the fractional amount left for Sonya, and shows that each of three friends receives $\frac{1}{16}$ of the treasure $\left(\frac{1}{16} \times 3 = \frac{3}{16}\right)$ (MP1). In Part A, the diagram representing the fractional parts of the treasure that each person receives is an inaccurate model because it is divided into fifteenths instead of sixteenths (no credit for MP4).

Total Awarded Points: 3 out of 4

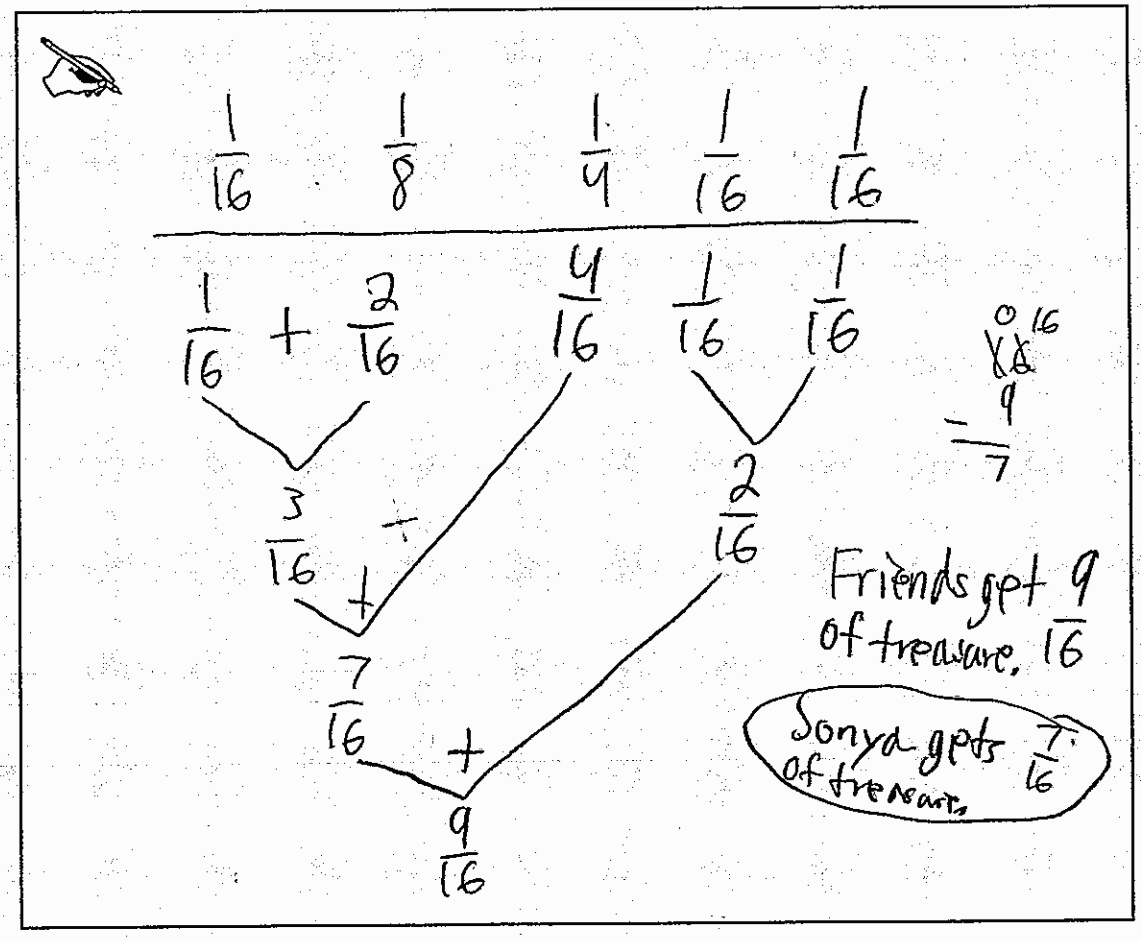
A-4a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.



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A-4b

Found Treasure Task

The treasure's value is $3200.

b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.

They each recieve $200.

$\frac{1}{16} \times \frac{3200}{1} = \frac{3200}{16}$

16 × 20 = 320

200 × 16 = 3200

c. How much of the treasure's value does Maria receive? Label your answer in dollars.

$\frac{2}{16} \times \frac{3200}{1} = \frac{6400}{16}$

400 × 16 = 6400

She gets $400.

d. How much of the treasure's value does Desiree receive? Label your answer in dollars.

$\frac{4}{16} \times \frac{3200}{1} = \frac{12800}{16}$

800 × 16 = 12800

She gets $800.

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Total Content Points: 2 (5.NF.A.1, 5.NF.B.4)

Total Practice Points: 1 (MP1)

In Part A, the student correctly adds the fractions of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{1}{16},\frac{2}{16},\frac{4}{16},\frac{1}{16},\frac{1}{16}\right)$; the student then subtracts the numerator of the sum $\frac{9}{16}$ from the numerator of $\frac{16}{16}$, indicating that "Sonya gets $\frac{7}{16}$ of treasure" (5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student demonstrates that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya $\left(\frac{7}{16}\right)$, and the student shows that each of three friends receives $\frac{1}{16}$ of the treasure $\left(\frac{1}{16},\frac{1}{16},\frac{1}{16}\right)$ (MP1). In Part A, the student does not provide a model to represent the fractional parts of the treasure that each person receives (no credit for MP4).

Total Awarded Points: 3 out of 4

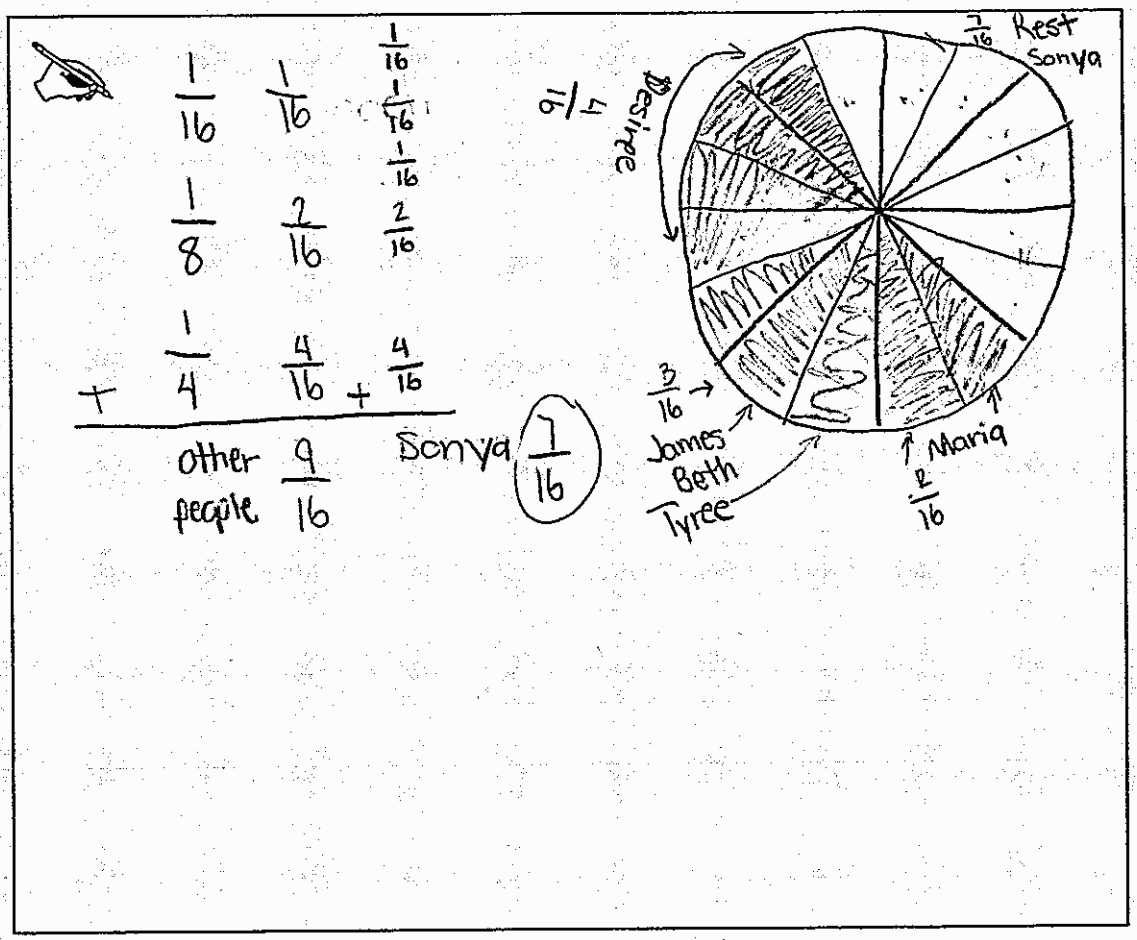
A-5a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

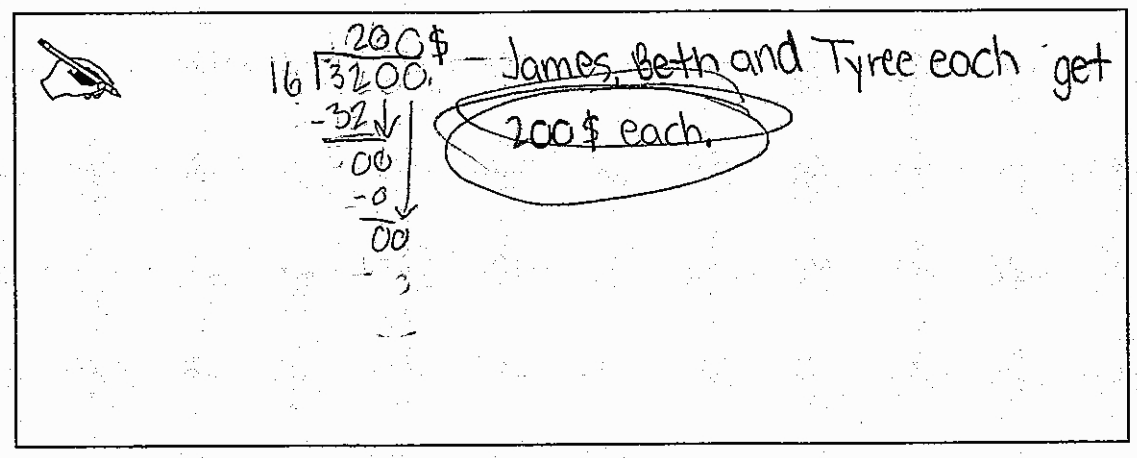


A-5b

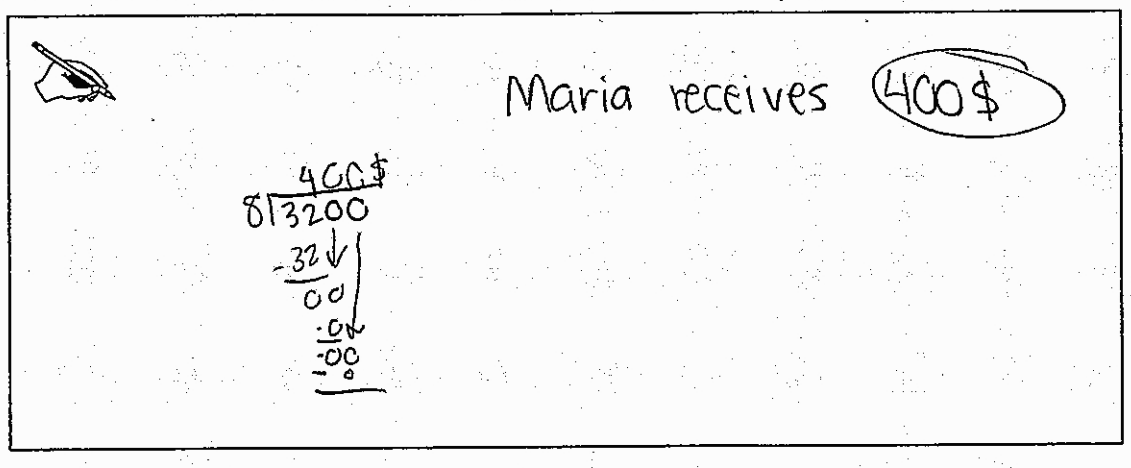
Found Treasure Task

The treasure's value is $3200.

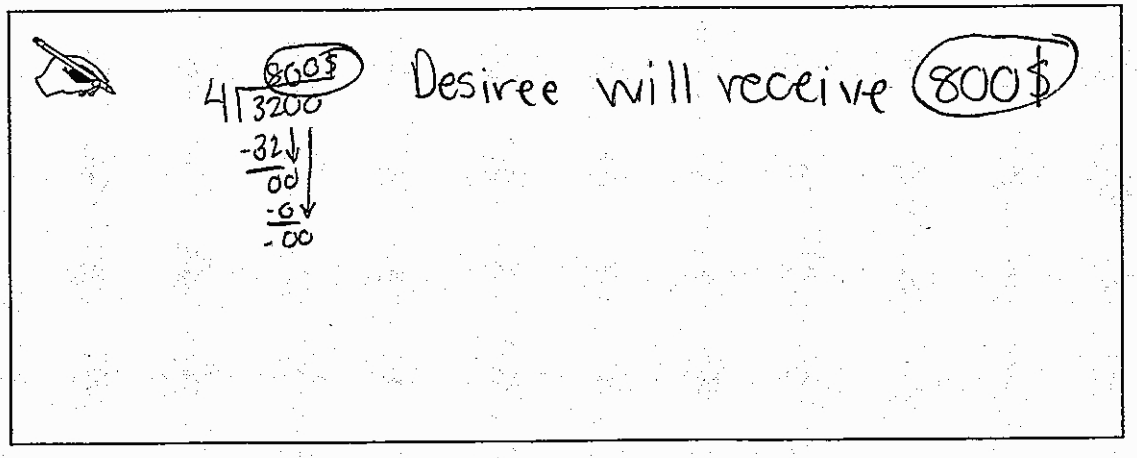
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 1 (5.NF.B.4)

Total Practice Points: 2 (MP1, MP4)

In Part A, although the student correctly adds the fractions of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{1}{16}+\frac{1}{16}+\frac{1}{16}+\frac{2}{16}+\frac{4}{16}=\frac{9}{16}\right)$, by neither writing nor solving a subtraction equation to find the fractional amount that Sonya keeps, the student does not show the final step in the process of solving the problem (no credit for 5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 (200$) in Part B, $\frac{1}{8}$ of 3200 (400$) in Part C, and $\frac{1}{4}$ of 3200 (800$) in Part D (5.NF.B.4). In Part A, the student accurately represents the fractional parts of the treasure that each person receives with a labeled diagram divided into sixteenths (MP4). The diagram indicates that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya $\left(\frac{7}{16}\right)$, and the student shows that each of three friends receives $\frac{1}{16}$ of the treasure for a total of $\frac{3}{16}$ (MP1).

Total Awarded Points: 3 out of 4

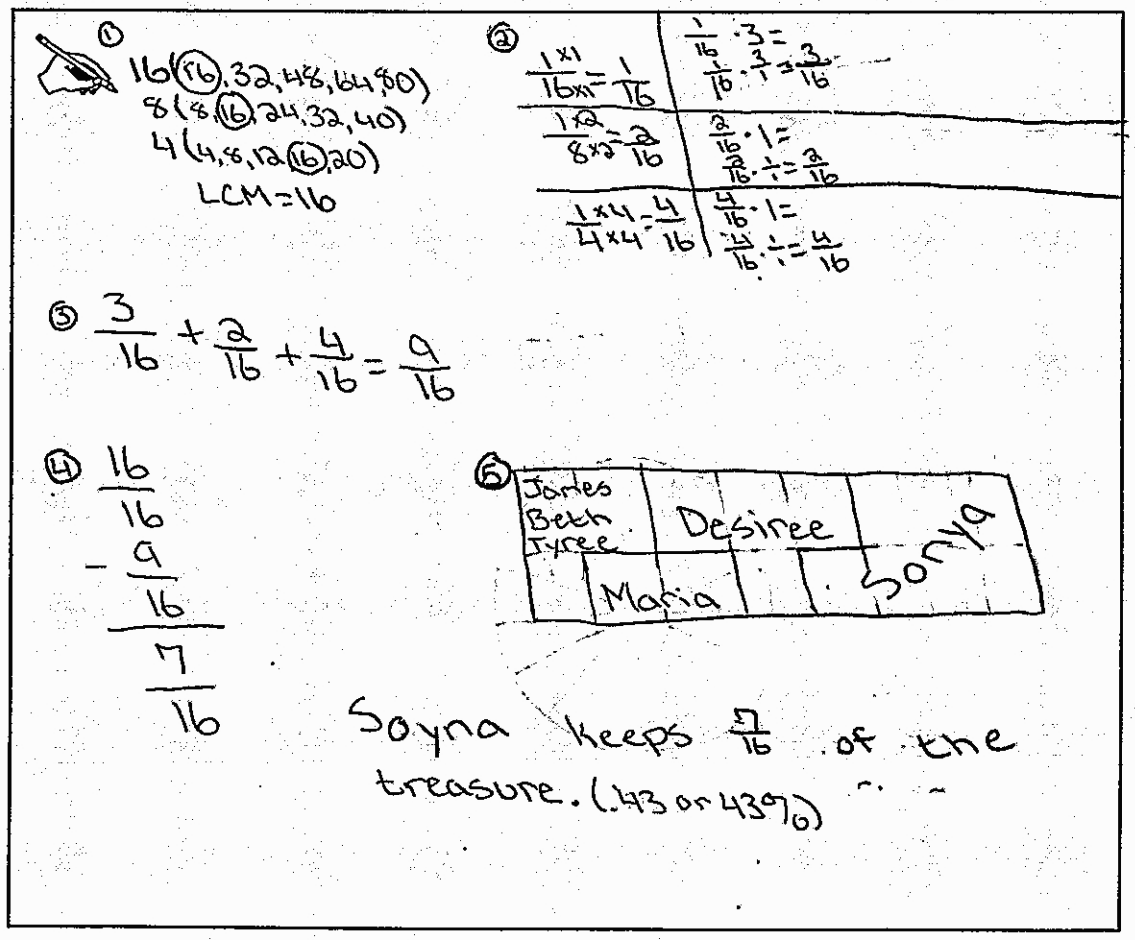
A-6a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

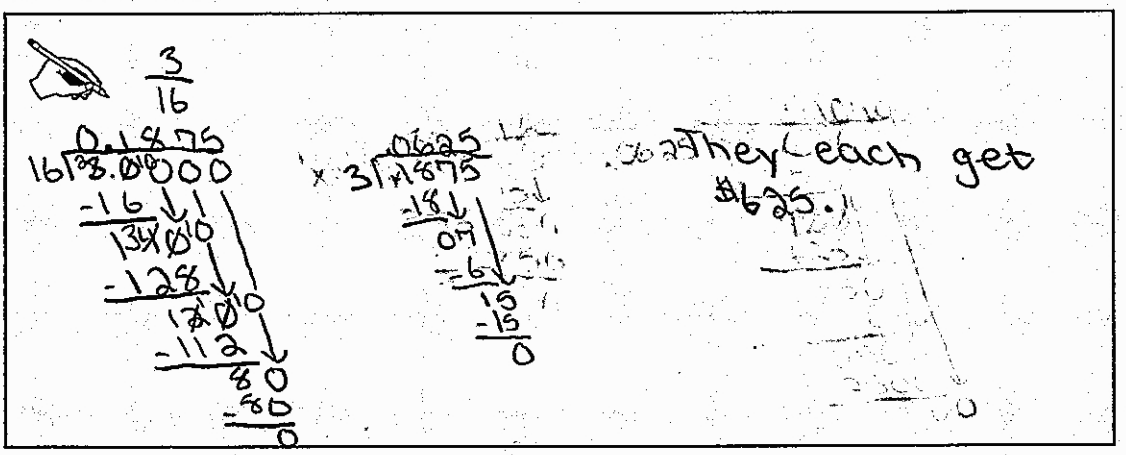


A-6b

Found Treasure Task

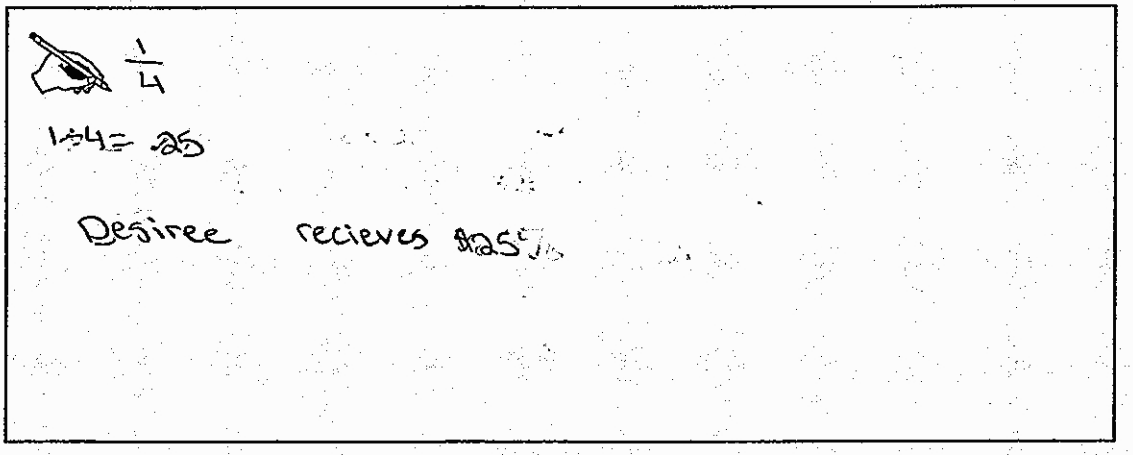
The treasure's value is $3200.

b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.

d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 1 (5.NF.A.1)

Total Practice Points: 1 (MP1)

In Part A, the student correctly adds the fractions of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{3}{16}+\frac{2}{16}+\frac{4}{16}=\frac{9}{16}\right)$; the student then accurately subtracts that total from $\frac{16}{16}$ to find the fractional amount that Sonya keeps $\left(\frac{16}{16}-\frac{9}{16}=\frac{7}{16}\right)$ (5.NF.A.1). The student incorrectly calculates $\frac{1}{16}$ of 3200 ($625) in Part B, $\frac{1}{8}$ of 3200 ($125) in Part C, and $\frac{1}{4}$ of 3200 ($25) in Part D (no credit for 5.NF.B.4). The student correctly shows that the amounts given away must be subtracted from 1 whole $\left(\frac{16}{16}\right)$ to determine the fractional amount left for Sonya, and shows that each of three friends receives $\frac{1}{16}$ of the treasure for a total of $\frac{3}{16}$ (MP1). In Part A, the diagram representing the fractional parts of the treasure that each person receives is an attempt to represent the total treasure divided into the fractions each person receives; however, some of the lines are partially erased and some are erased completely, making the diagram difficult to interpret clearly (no credit for MP4).

Total Awarded Points: 2 out of 4

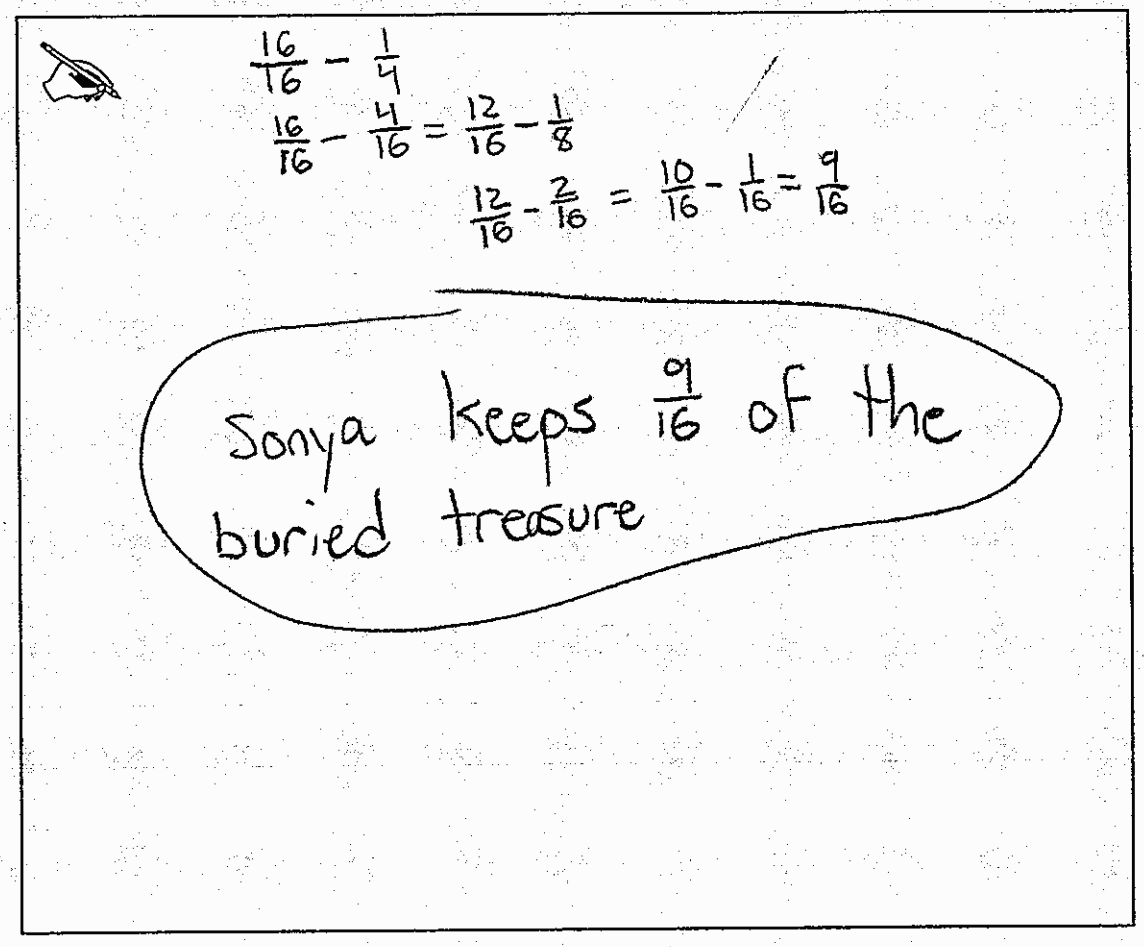
A-7a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

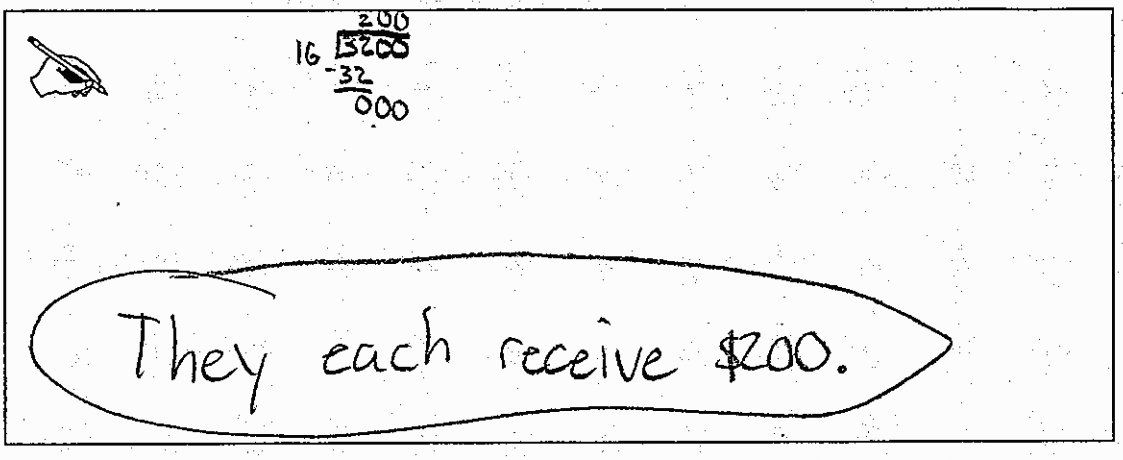


A-7b

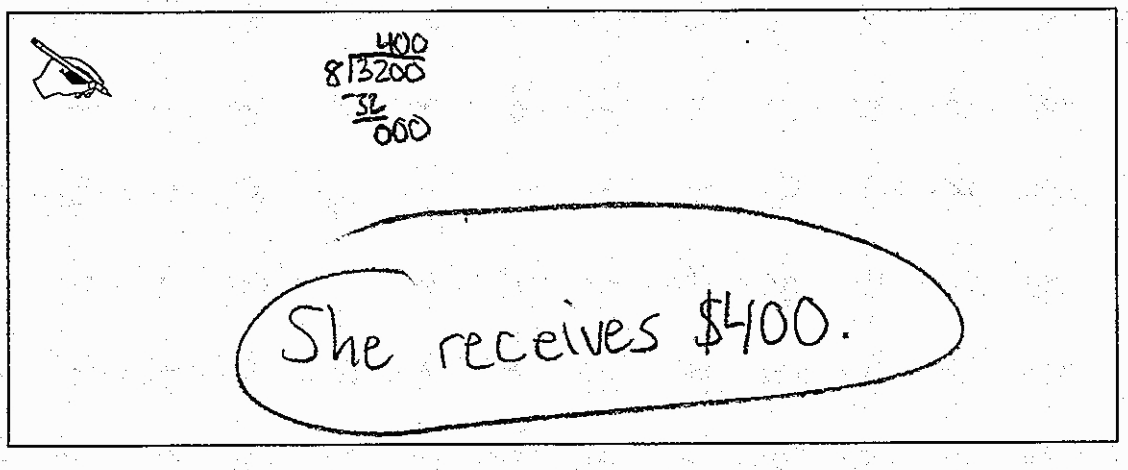
Found Treasure Task

The treasure's value is $3200.

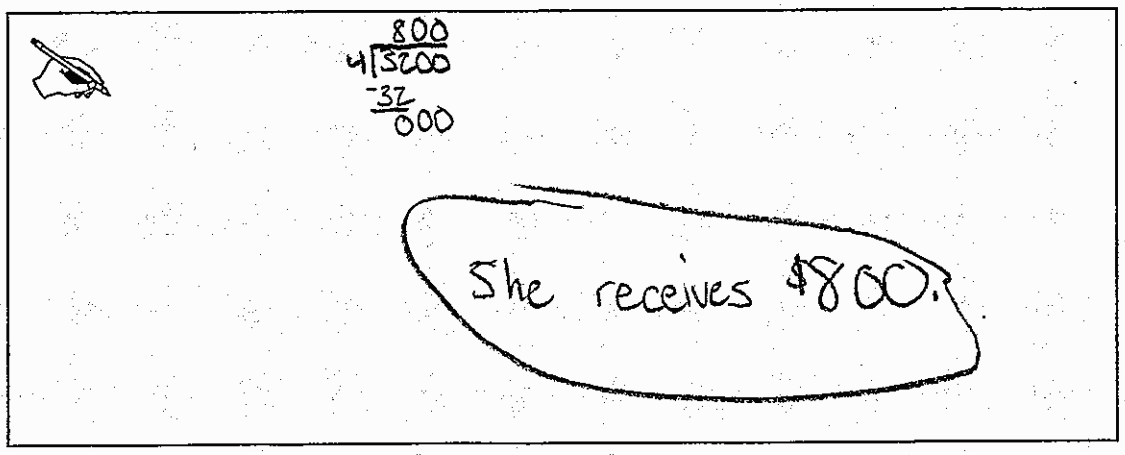
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 2 (5.NF.A.1, 5.NF.B.4)

Total Practice Points: 0

In Part A, although the equation does not correctly model the situation, the student writes and accurately solves a subtraction equation using fractions with unlike denominators by replacing all fractions with equivalent fractions with like denominators $\left(\frac{10}{16} - \frac{1}{16} = \frac{9}{16}\right)$ (5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student neither shows that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya nor indicates that each of three friends receives $\frac{1}{16}$ of the treasure, instead using $\frac{1}{16}$ for one friend (no credit for MP1). In Part A, the student does not provide a model to represent the fractional parts of the treasure that each person receives (no credit for MP4).

Total Awarded Points: 2 out of 4

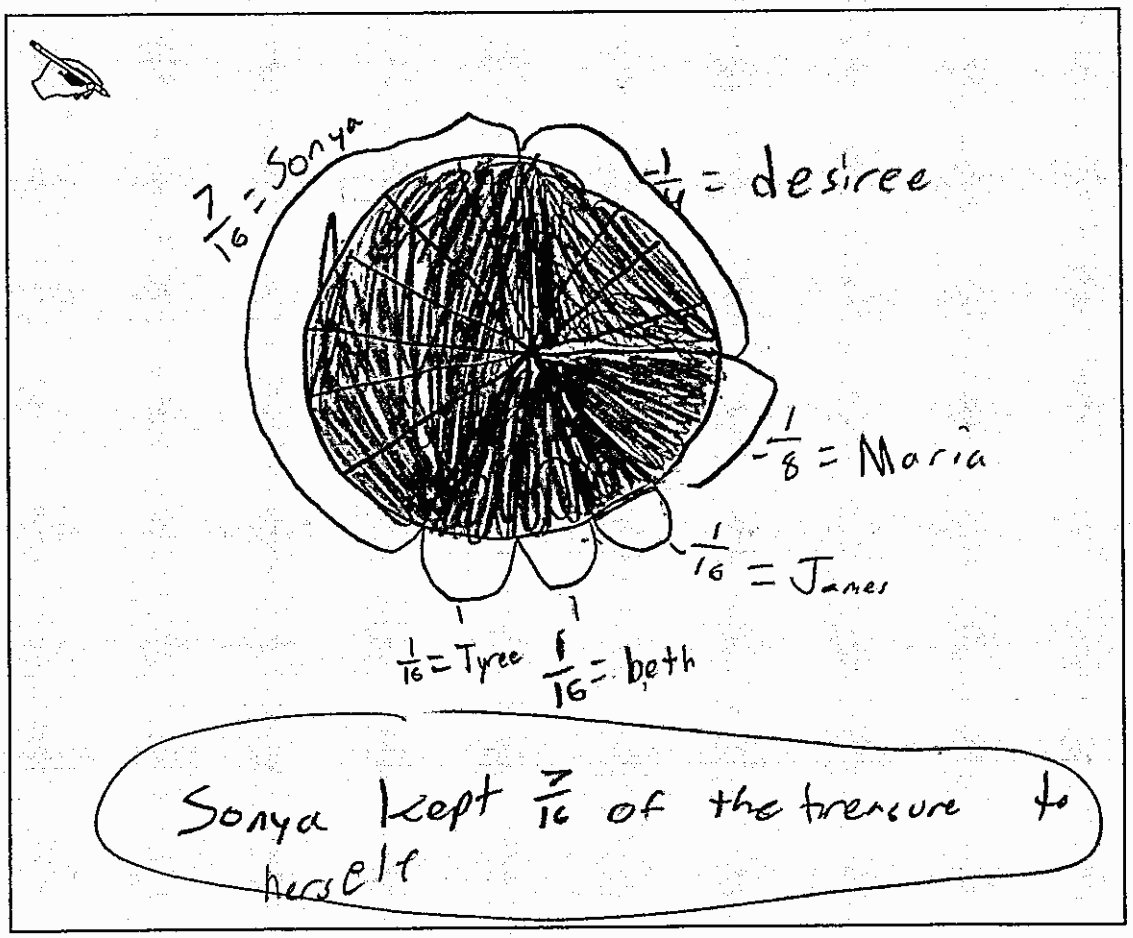
A-8a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

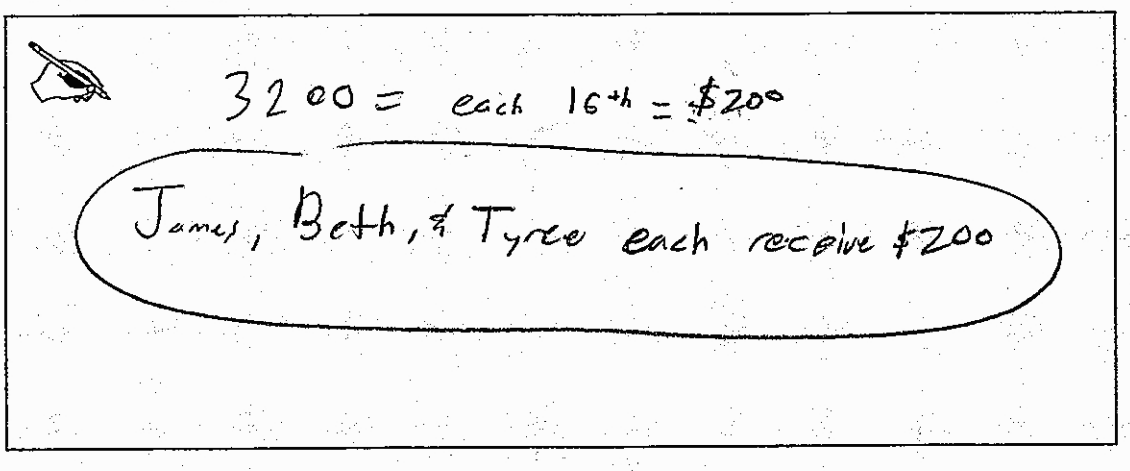


A-8b

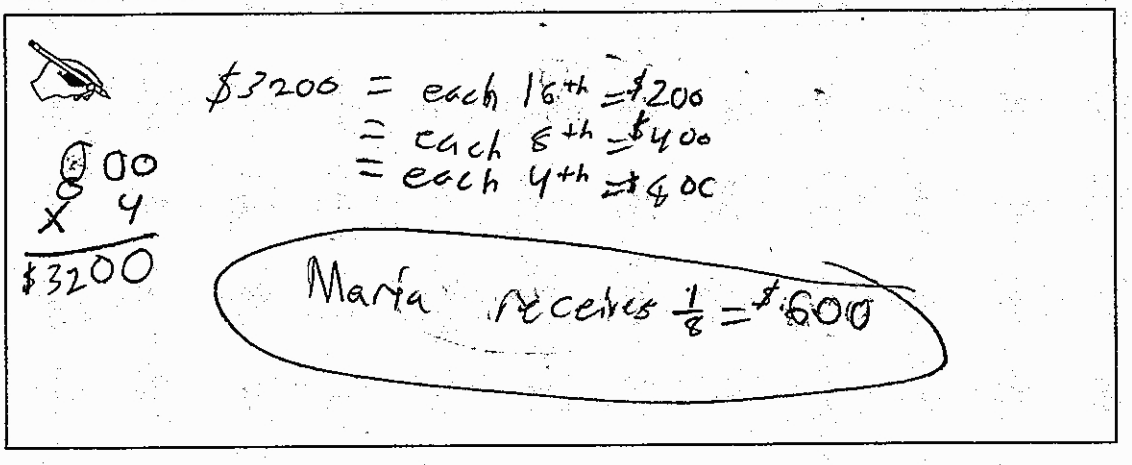
Found Treasure Task

The treasure's value is $3200.

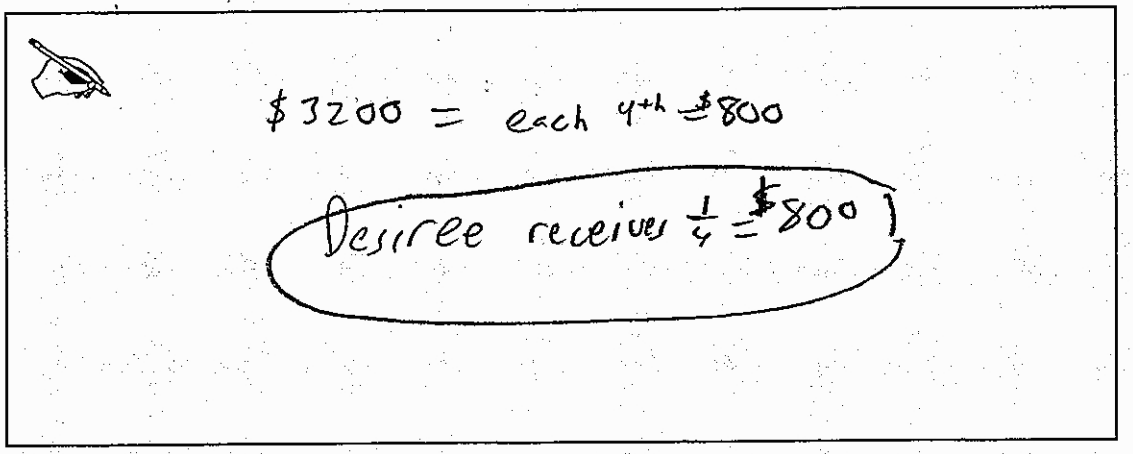
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 0

Total Practice Points: 2 (MP1, MP4)

In Part A, the student does not solve any equations that have fractions to determine the fractional amount of the treasure Sonya keeps (no credit for 5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B and $\frac{1}{4}$ of 3200 ($800) in Part D, but the calculation for $\frac{1}{8}$ of 3200 ($600) in Part C is incorrect (no credit for 5.NF.B.4). In Part A, the student accurately represents the fractional parts of the treasure that each person receives with a labeled diagram divided into sixteenths (MP4). The diagram indicates that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya $\left(\frac{7}{16}\right)$, and the student shows that each of three friends receives $\frac{1}{16}$ of the treasure (MP1).

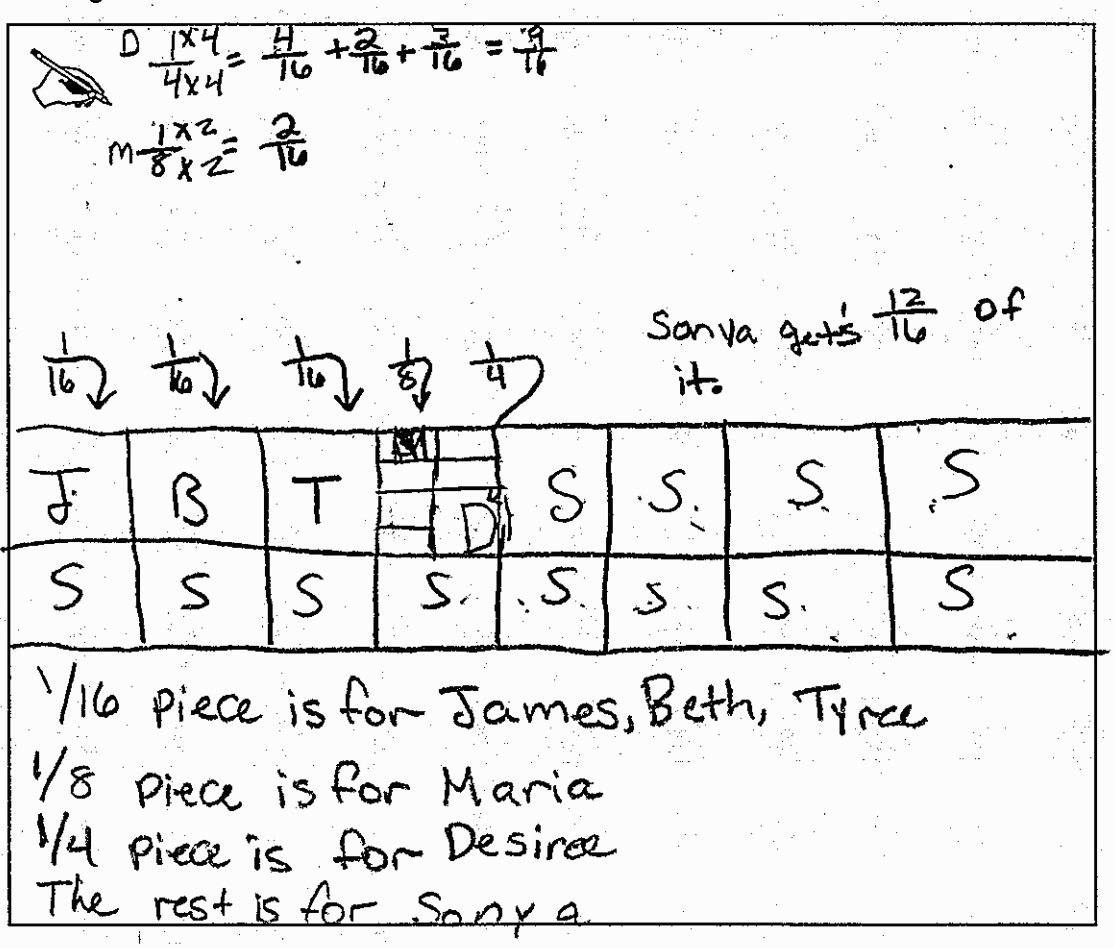
Total Awarded Points: 2 out of 4

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{B}{16}$ of the treasure. 1
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure. M
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure. D
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

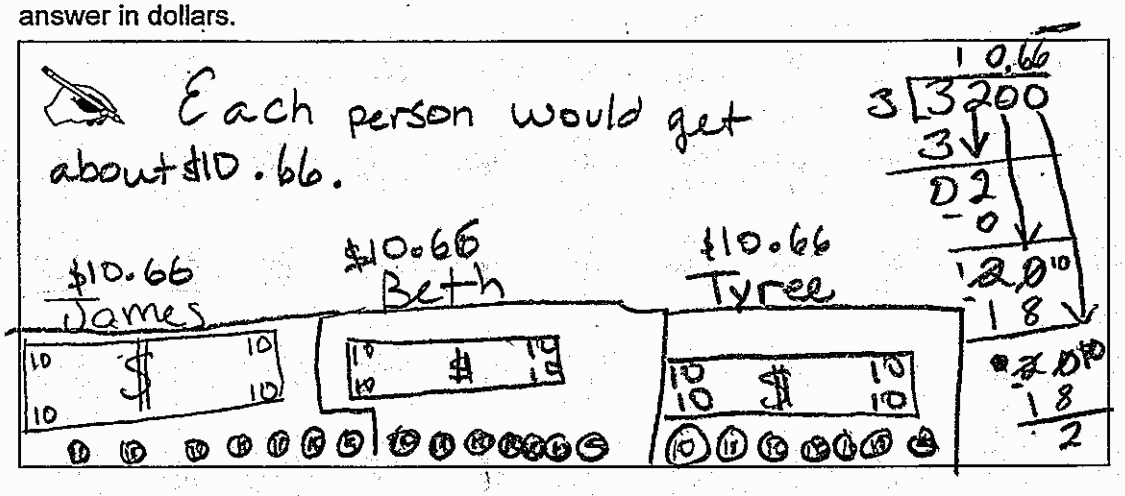


A-9b

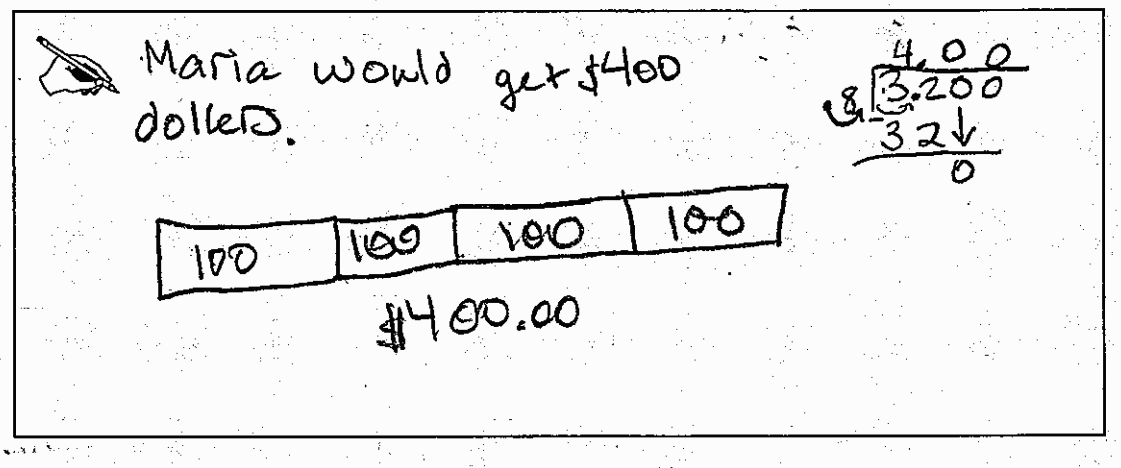
Found Treasure Task

The treasure's value is $3200.

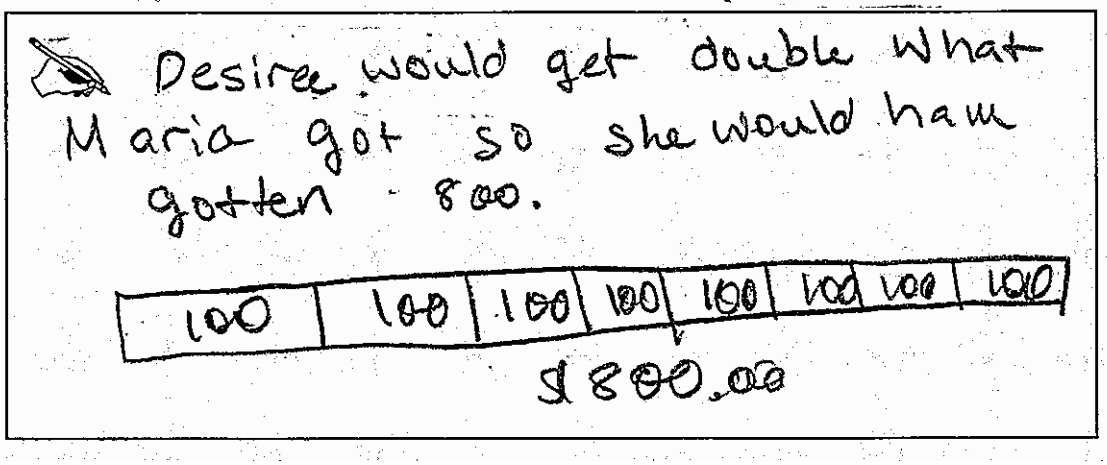
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 0

Total Practice Points: 1 (MP1)

In Part A, although the student correctly adds the fractions of the treasure given to Sonya's friends by replacing all fractions with equivalent fractions with like denominators $\left(\frac{4}{16}+\frac{2}{16}+\frac{3}{16}=\frac{9}{16}\right)$, the student does not subtract the fraction found from one whole to find the fraction of the treasure Sonya keeps, instead giving an incorrect answer $\left(\frac{12}{16}\right)$ (no credit for 5.NF.A.1). The student correctly calculates $\frac{1}{8}$ of 3200 ($400) in Part C and $\frac{1}{4}$ of 3200 ($800) in Part D, but the calculation for $\frac{1}{16}$ of 3200 ($10.66) in Part B is incorrect (no credit for 5.NF.B.4). The student indicates that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya, and shows that each of three friends receives $\frac{1}{16}$ of the treasure, for a total of $\frac{3}{16}$ (MP1). However, the diagram in Part A does not accurately represent the correct fractional parts of the treasure that each person receives, indicating that Desiree and Maria receive fractions of $\frac{1}{16}$ rather than fractions of the whole (no credit for MP4).

Total Awarded Points: 1 out of 4

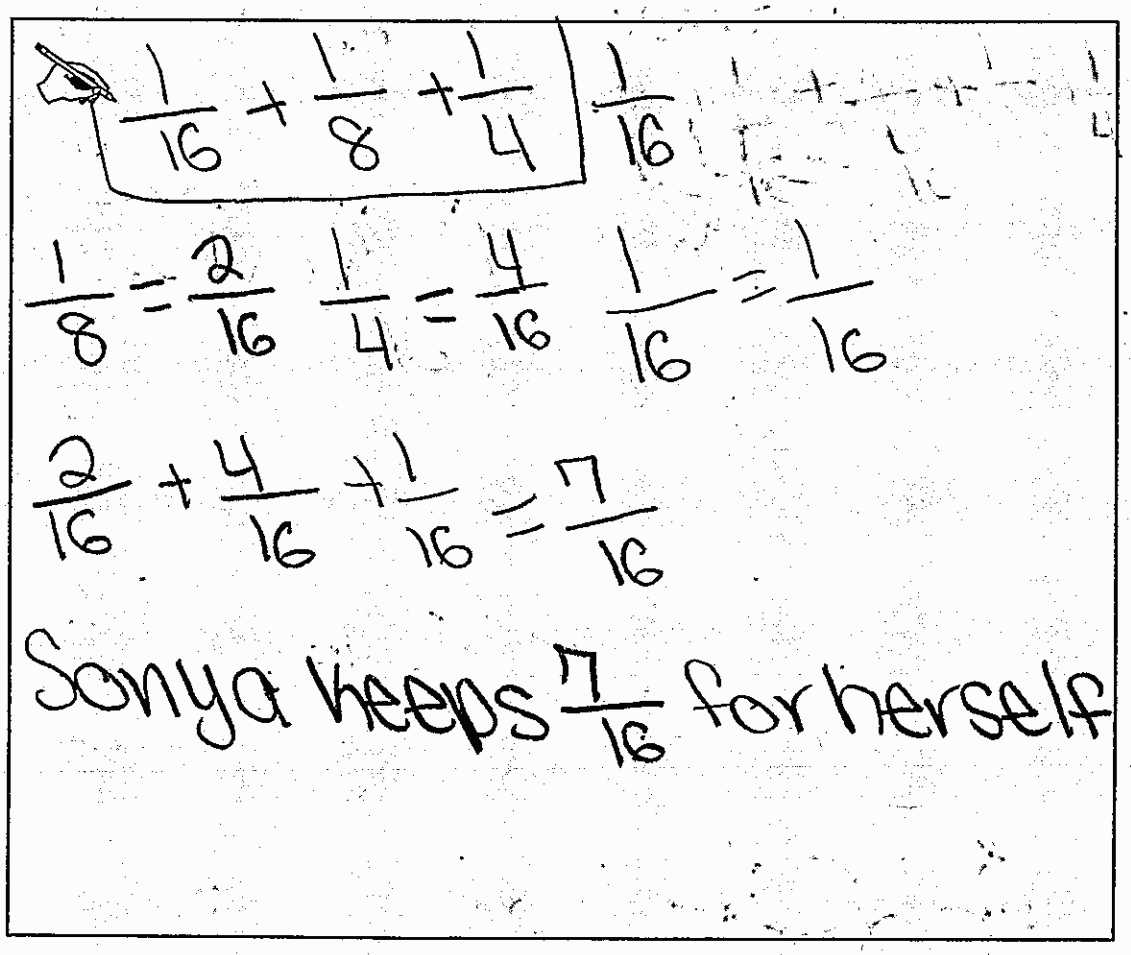
A-10a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.

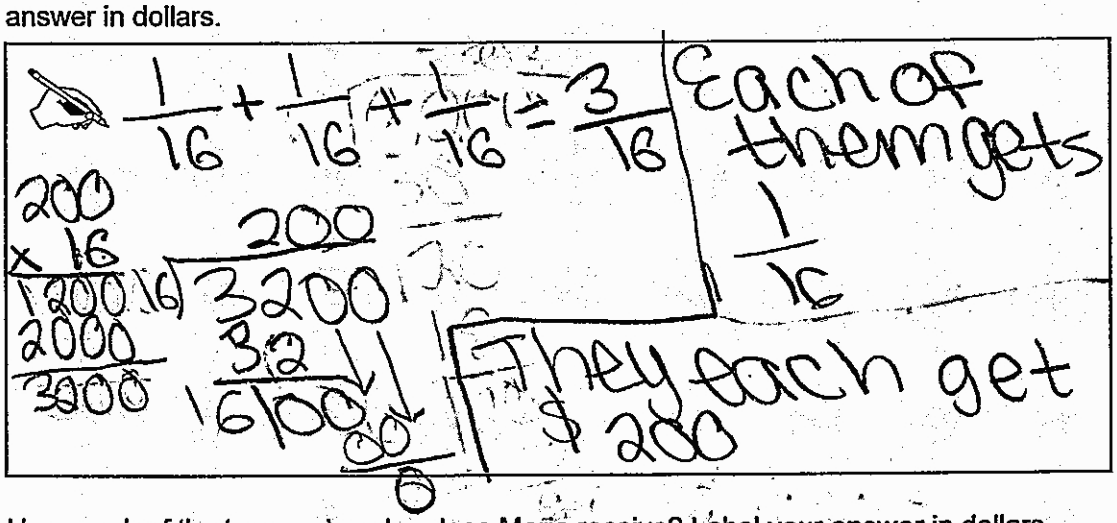


A-10b

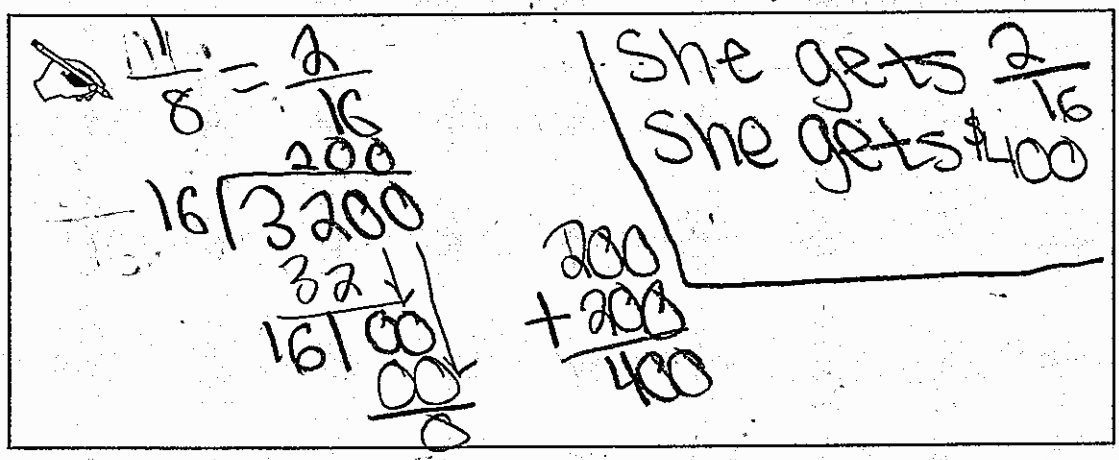
Found Treasure Task

The treasure's value is $3200.

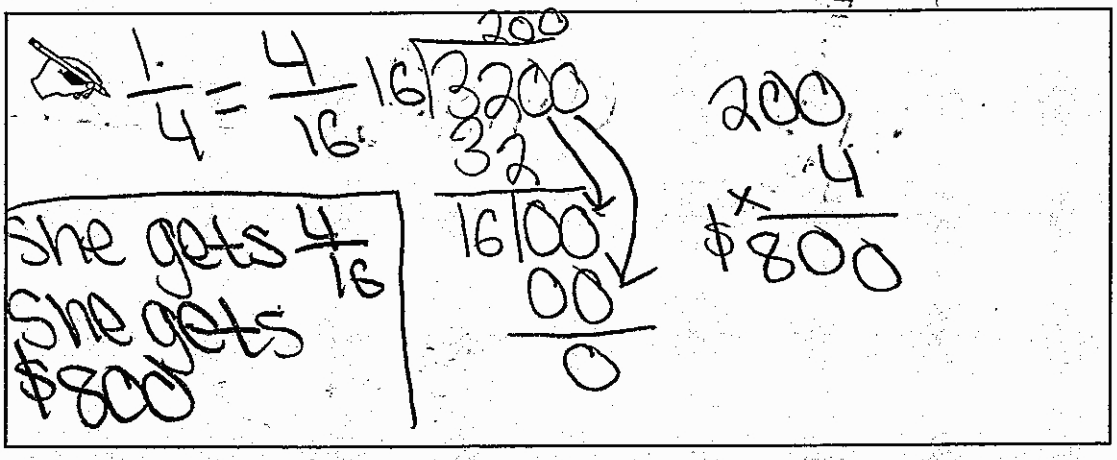
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 1 (5.NF.B.4)

Total Practice Points: 0

In Part A, the student incorrectly solves an incorrect process (finding the total of $\frac{1}{16} + \frac{1}{8} + \frac{1}{4}$ and taking that total as the answer, rather than finding the total fraction given to Sonya's friends and subtracting that total from the whole) to find a coincidentally correct result, which is considered an incorrect answer (no credit for 5.NF.A.1). The student correctly calculates $\frac{1}{16}$ of 3200 ($200) in Part B, $\frac{1}{8}$ of 3200 ($400) in Part C, and $\frac{1}{4}$ of 3200 ($800) in Part D (5.NF.B.4). The student neither shows that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya, nor indicates that each of three friends receives $\frac{1}{16}$ of the treasure, instead using $\frac{1}{16}$ for one friend (no credit for MP1). In Part A, the student does not provide a model to represent the fractional parts of the treasure that each person receives (no credit for MP4).

Total Awarded Points: 1 out of 4

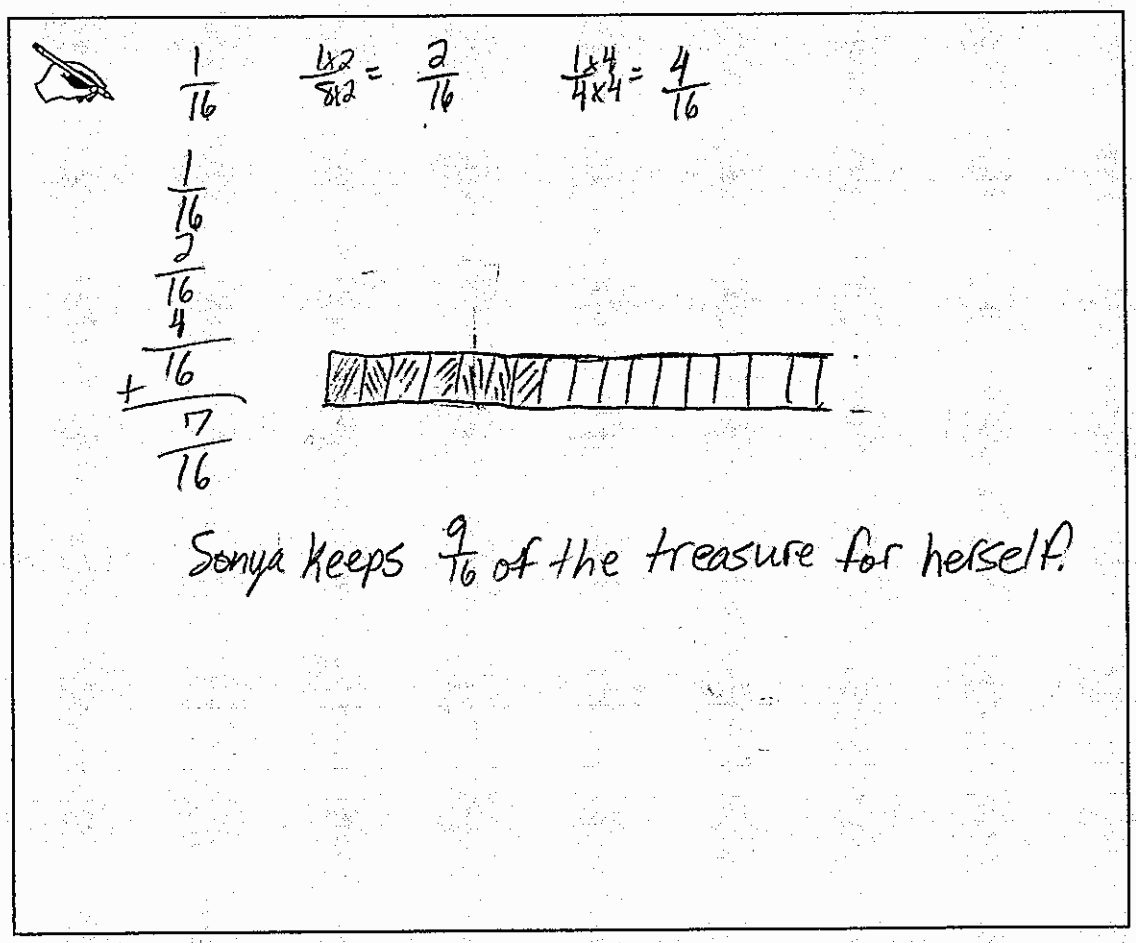
A-11a

Found Treasure Task

Sonya is walking on the beach and finds a buried treasure! Sonya decides to give each of her friends a fraction of the treasure.

- James, Beth, and Tyree EACH receive $\frac{1}{16}$ of the treasure.
- Sonya's good friend Maria receives $\frac{1}{8}$ of the treasure.
- Sonya's best friend, Desiree, receives $\frac{1}{4}$ of the treasure.
- Sonya keeps the rest of the treasure.

a. What fraction of the treasure does Sonya keep for herself? Use addition and/or subtraction of fractions in one or more equations to find your answer. Include a diagram to show your thinking.



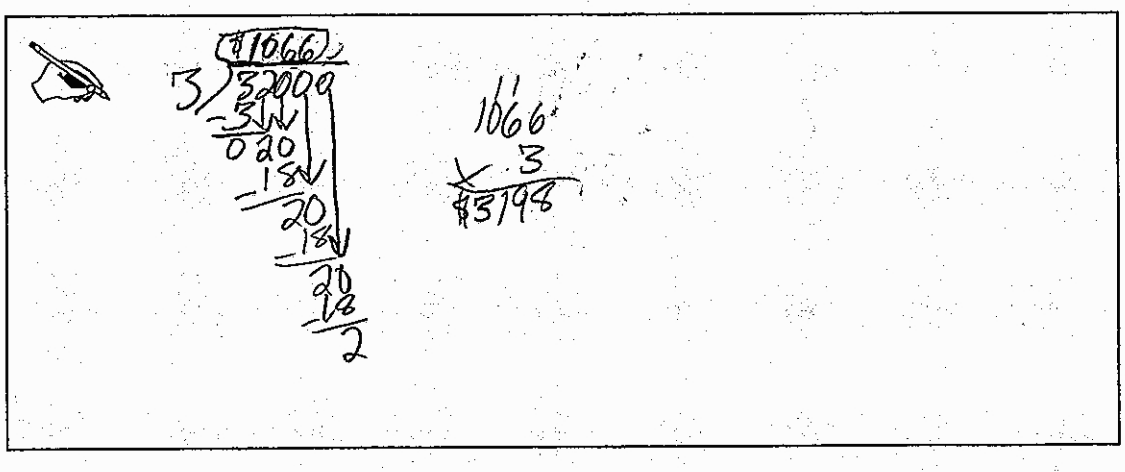
Litho#: 00275200183

A-11b

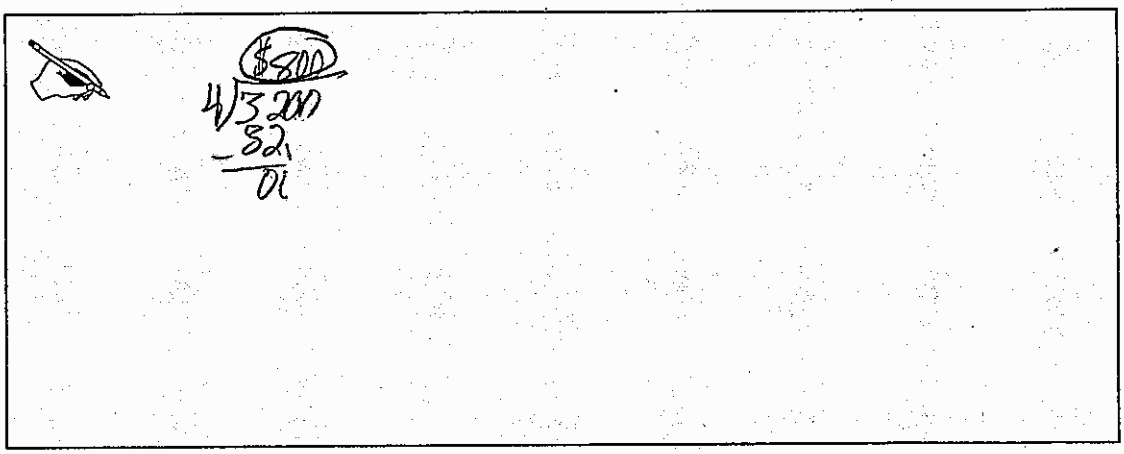
Found Treasure Task

The treasure's value is $3200.

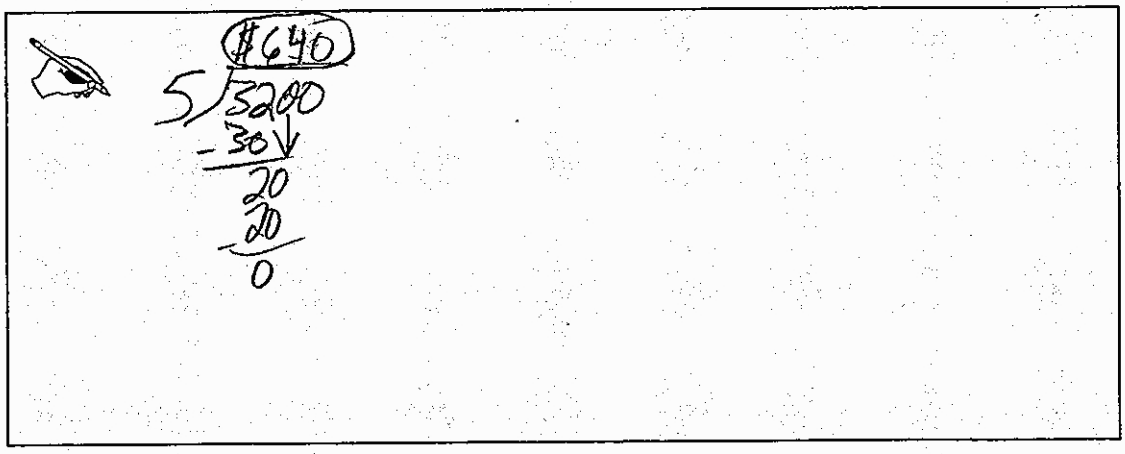
b. How much of the treasure's value do James, Beth, and Tyree EACH receive? Label your answer in dollars.



c. How much of the treasure's value does Maria receive? Label your answer in dollars.



d. How much of the treasure's value does Desiree receive? Label your answer in dollars.



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Total Content Points: 0

Total Practice Points: 0

In Part A, the student finds the total of $\frac{1}{16} + \frac{1}{8} + \frac{1}{4}$, but does not add all three parts that are $\frac{1}{16}$ and does not show the correct process of subtracting the total given to Sonya's friends from the whole, leading to an incorrect answer (no credit for 5.NF.A.1). The student incorrectly calculates $\frac{1}{16}$ of 3200 ($1066) in Part B, $\frac{1}{8}$ of 3200 ($800) in Part C, and $\frac{1}{4}$ of 3200 ($640) in Part D (no credit for 5.NF.B.4). The student does not show that the amounts given away must be subtracted from 1 whole to determine the fractional amount left for Sonya, and does not indicate that each of three friends receives $\frac{1}{16}$ of the treasure for a total of $\frac{3}{16}$, instead using $\frac{1}{16}$ for one friend (no credit for MP1). The diagram in Part A, although correctly divided into sixteenths, lacks labels to represent the fractional parts of the treasure each person receives (no credit for MP4).

Total Awarded Points: 0 out of 4