Tennessee Comprehensive Assessment Program

TCAP/CRA 2013

4

Task 2 Scoring Guide

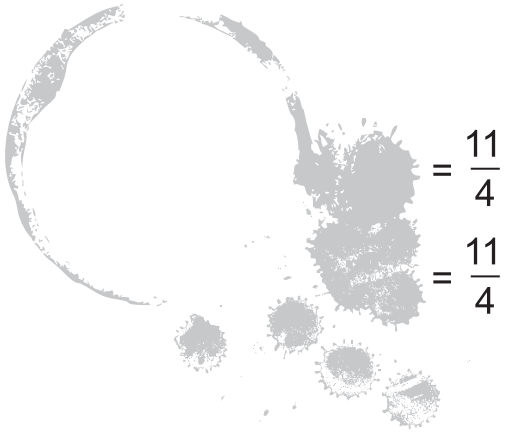
Ms. Hill's Homework Task

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.



a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

Equation 1	Equation 2

GO ON TO THE NEXT PAGE.

b. Choose one of your equations and draw a diagram to show it is correct.

c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.

2. Ms. Hill's Homework Task Scoring Guide

The CCSS for Mathematical Content (2 points)

4.NF.B.3 Provides one correct addition or subtraction equation with an answer of $\frac{11}{4}$. _____

(1 Point)

4.NF.B.4a Writes the equation $\frac{11}{4} = 11 \times \frac{1}{4}$. _____

(1 Point)

Total Content Points _____

The CCSS for Mathematical Practice (2 points)

MP4 Uses a diagram to model one of the equations. _____

(1 Point)

(MP4: Model with mathematics.)

MP6 Writes two correct equations (may be any operation) with an answer of $\frac{11}{4}$ in part a. _____

(1 Point)

(MP6: Attend to precision.)

Total Practice Points _____

Total Awarded Points _____

The CCSS for Mathematical Content Addressed in This Task

Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers.

4.NF.B.3 Understand a fraction a/b with a > 1 as a sum of fractions 1/b.

4.NF.B.4a Understand a fraction *a*/*b* as a multiple of 1/*b*. *For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4).*

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 text indicates Mathematical Practices that are not addressed in this task.

Students' responses to a mathematical task provide evidence of what they understand and are able to do in relation to the standards and practices. Across tasks, this cumulative evidence shows students' understanding and abilities within a domain. When students do not respond completely to all parts of a task, they provide insufficient evidence of their mathematical understanding and abilities and therefore do not fully demonstrate the expectations of the standards and practices aligned with that task.

Task 2. Ms. Hill's Homework Task

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$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

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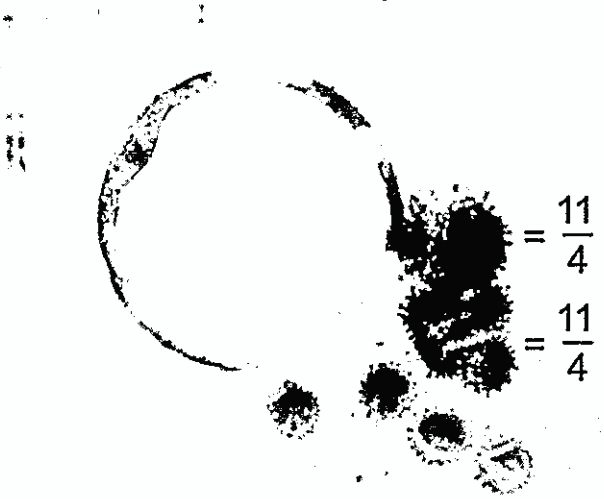
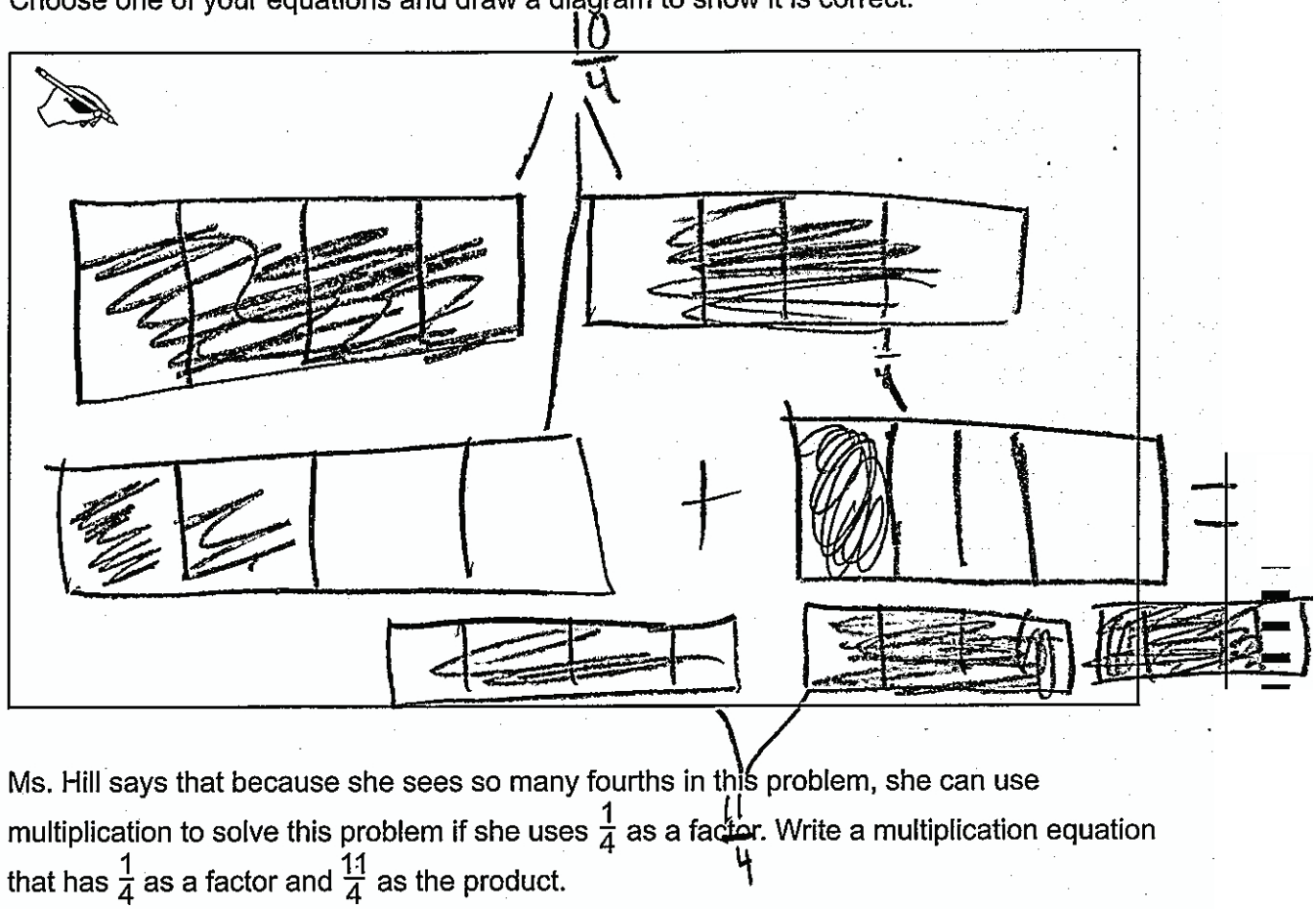


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

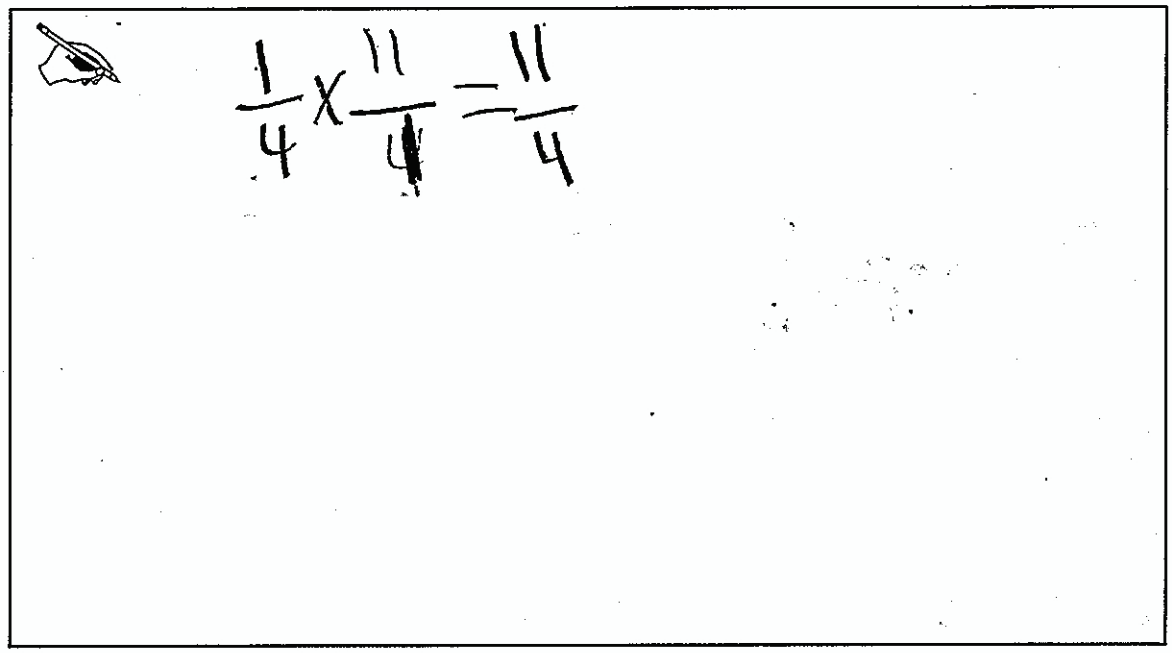
Equation 1	Equation 2
$\frac{10}{4} + \frac{1}{4} = \frac{11}{4}$	$\frac{6}{4} + \frac{5}{4} = \frac{11}{4}$

Litho#: 461713

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 461713

Guide 1 Litho 461713

Total Content Points: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 2 (MP4, MP6)

The student provides correct addition equations with answers of $\frac{11}{4}$ in Part A to show understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\text{e.g., } \frac{10}{4}+\frac{1}{4}=\frac{11}{4}\right)$ (4.NF.B.3).

In Part C, the student writes the correct equation to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ $\left(\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}\right)$ (4.NF.B.4a). In Part B, the student's diagram correctly models the equation $\frac{10}{4}+\frac{1}{4}=\frac{11}{4}$ (MP4). The student correctly writes two different equations in Part A $\left(\frac{10}{4}+\frac{1}{4}=\frac{11}{4},\ \frac{6}{4}+\frac{5}{4}=\frac{11}{4}\right)$ (MP6).

Total Awarded Points: 4 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

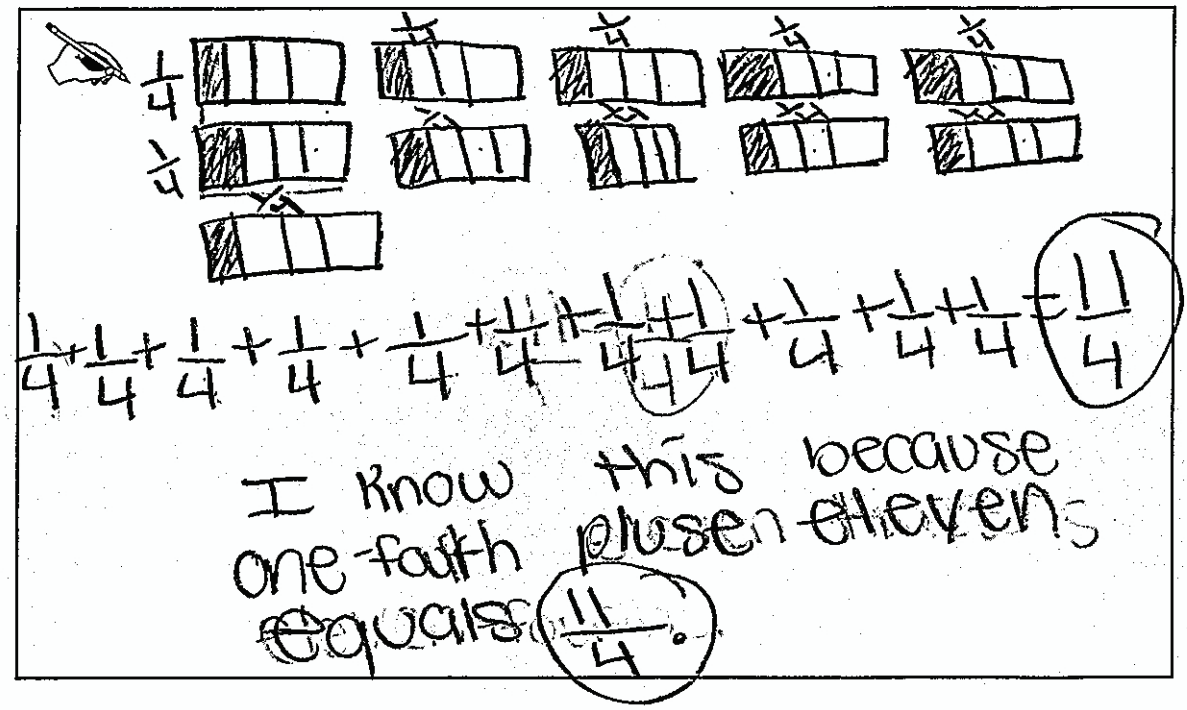
While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

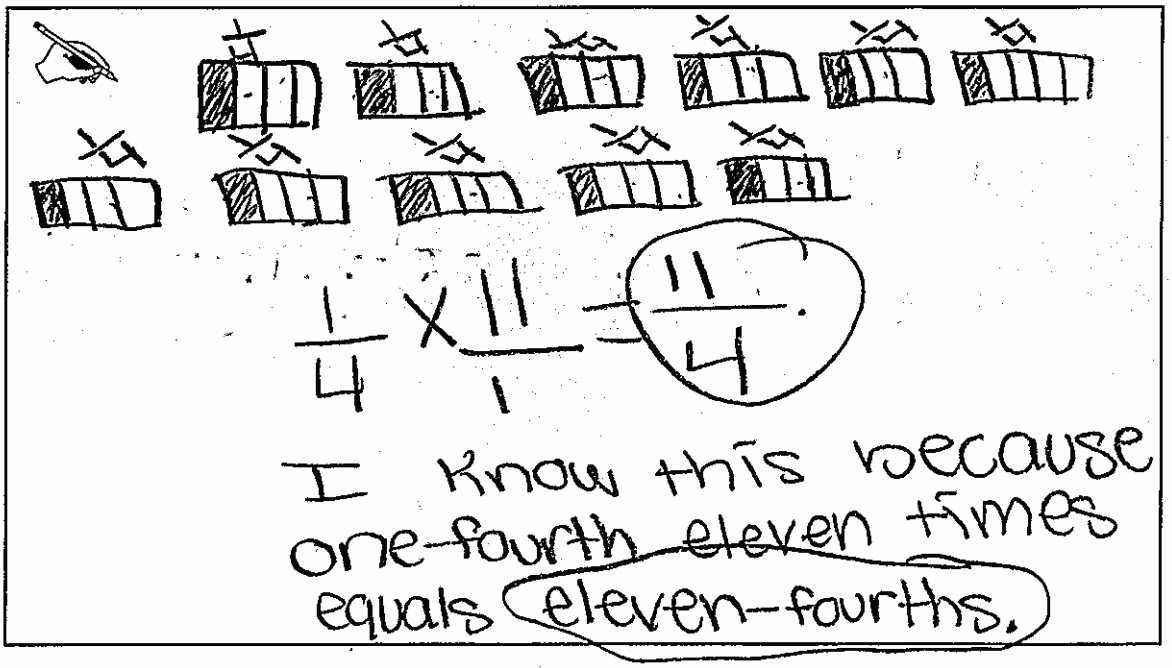
Equation 1	Equation 2
$\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}=\frac{11}{4}$	$\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}$

Litho#: 480931

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 480931

Guide 2 Litho 480931

Total Content Point: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 2 (MP4, MP6)

The student provides a correct addition equation with an answer of $\frac{11}{4}$ in Part A to show understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\frac{1}{4}+\frac{1}{4}+\frac{1}{4} \ ... = \frac{11}{4}\right)$ (4.NF.B.3). The student writes the correct equation $\left(\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}\right)$ to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ in Part C (4.NF.B.4a). In Part B, the student's diagram correctly models the equation $\left(\frac{1}{4}+\frac{1}{4}+\frac{1}{4} \ ... = \frac{11}{4}\right)$ (MP4). The student correctly writes two different equations in Part A, one using addition $\left(\frac{1}{4}+\frac{1}{4}+\frac{1}{4} \ ... = \frac{11}{4}\right)$, and one using multiplication $\left(\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}\right)$ (MP6).

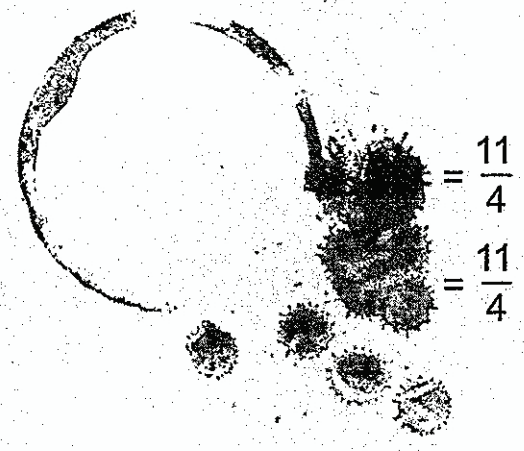
Total Awarded Points: 4 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

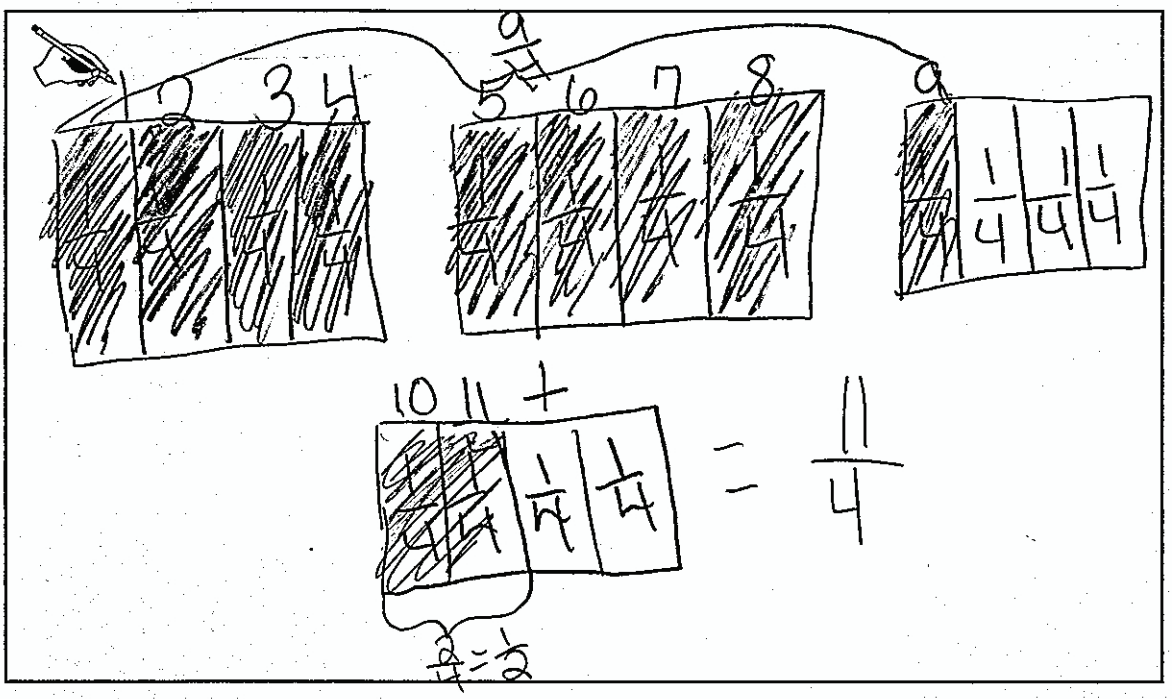


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

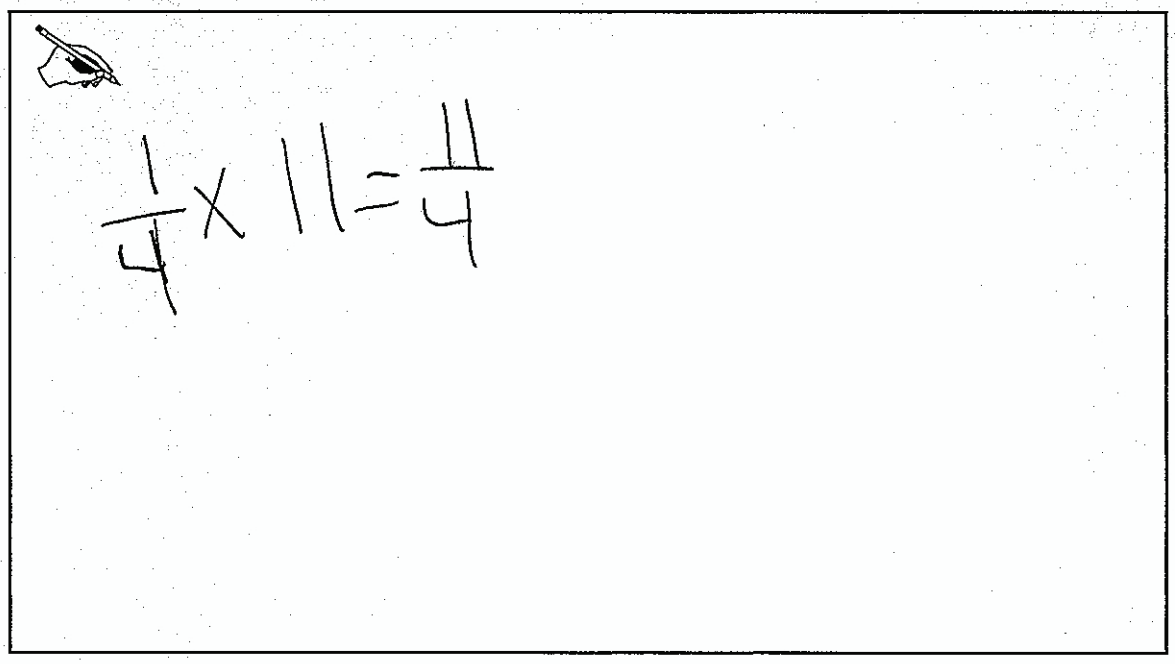
Equation 1	Equation 2
$\frac{9}{4} + \frac{2}{4} = \frac{11}{4}$	$\frac{4}{4} + \frac{4}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{11}{4}$

Litho#: 461795

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 461795

Guide 3 Litho 461795

Total Content Points: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 2 (MP4, MP6)

The student provides two correct addition equations with answers of $\frac{11}{4}$ to show understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ in Part A $\left(\text{e.g., } \frac{9}{4}+\frac{2}{4}=\frac{11}{4}\right)$ (4.NF.B.3). In Part C, the student writes the correct equation to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ $\left(\frac{1}{4}\times 11=\frac{11}{4}\right)$ (4.NF.B.4a). In Part B, the student's diagram correctly models the equation $\frac{9}{4}+\frac{2}{4}=\frac{11}{4}$ (MP4). The student correctly writes two different equations in Part A $\left(\frac{9}{4}+\frac{2}{4}=\frac{11}{4};\ \frac{4}{4}+\frac{4}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}=\frac{11}{4}\right)$ (MP6).

Total Awarded Points: 4 out of 4

Task 2. Ms. Hill's Homework Task

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$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

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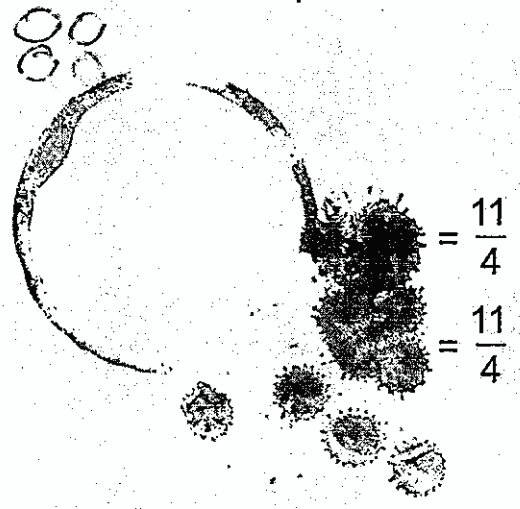
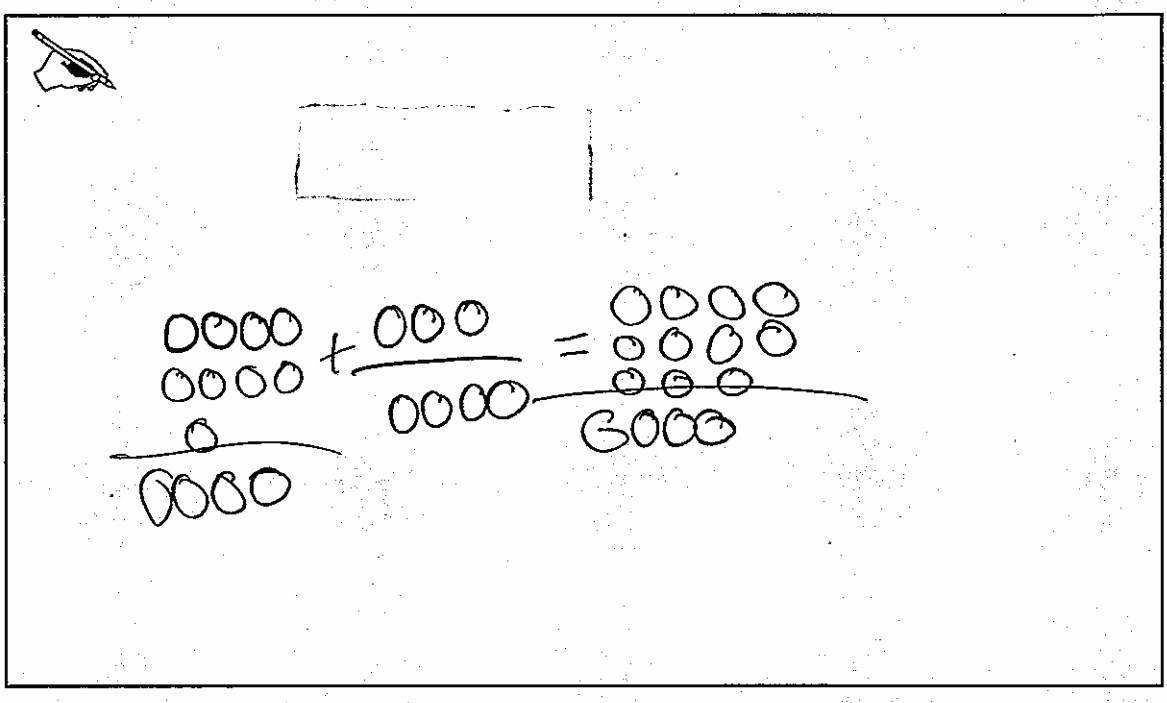


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

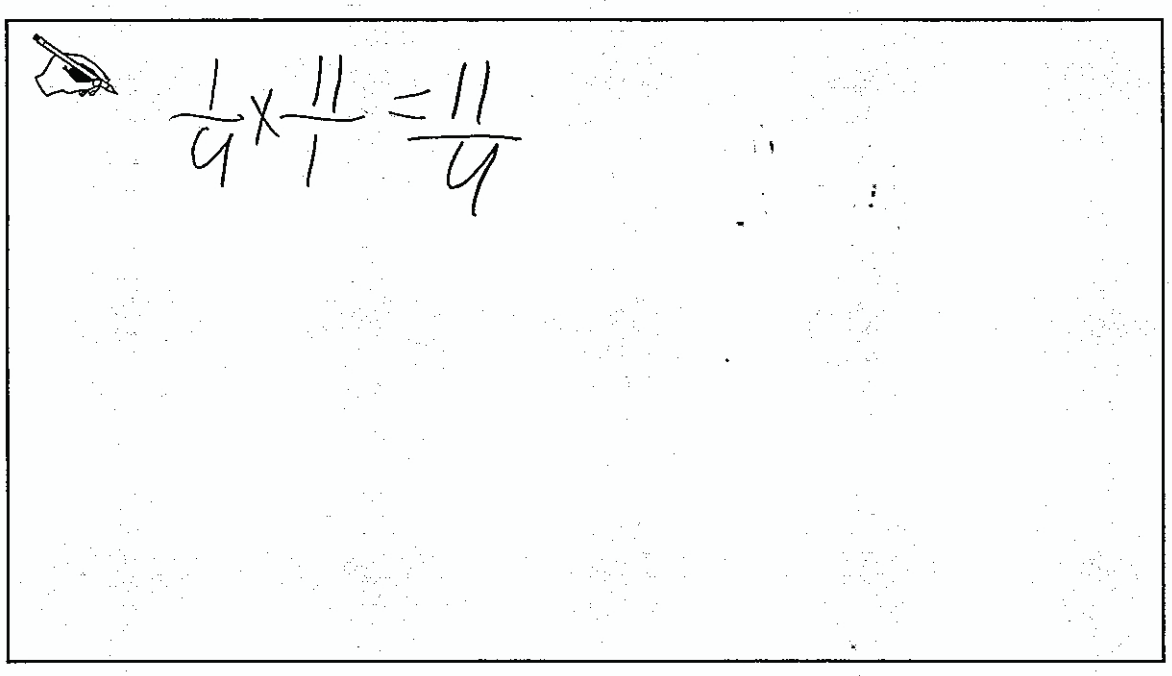
Equation 1	Equation 2
$\frac{9}{4} + \frac{2}{4} = \frac{11}{4}$	$\frac{8}{4} + \frac{3}{4} = \frac{11}{4}$

Litho#: 467396

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 467396

Guide 4 Litho 467396

Total Content Points: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 1 (MP6)

The student provides two correct addition equations with answers of $\frac{11}{4}$ in Part A to show understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ (4.NF.B.3). The student writes the correct equation in Part C to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ $\left(\frac{1}{4} \times \frac{11}{1} = \frac{11}{4}\right)$ (4.NF.B.4a). In Part B, the student splices the equations from Part A to produce an incorrect diagram (no credit for MP4). The student correctly writes two different equations in Part A $\left(\frac{9}{4} + \frac{2}{4} = \frac{11}{4},\ \frac{8}{4} + \frac{3}{4} = \frac{11}{4}\right)$ (MP6).

Total Awarded Points: 3 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

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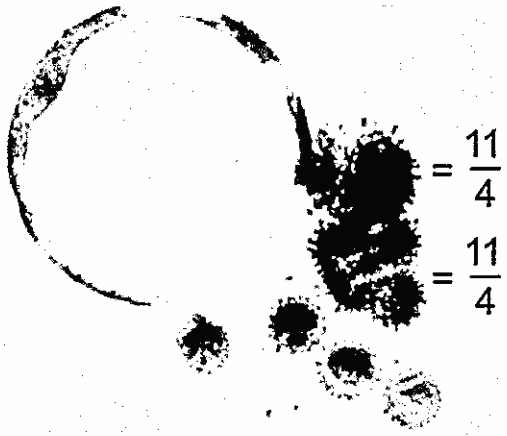
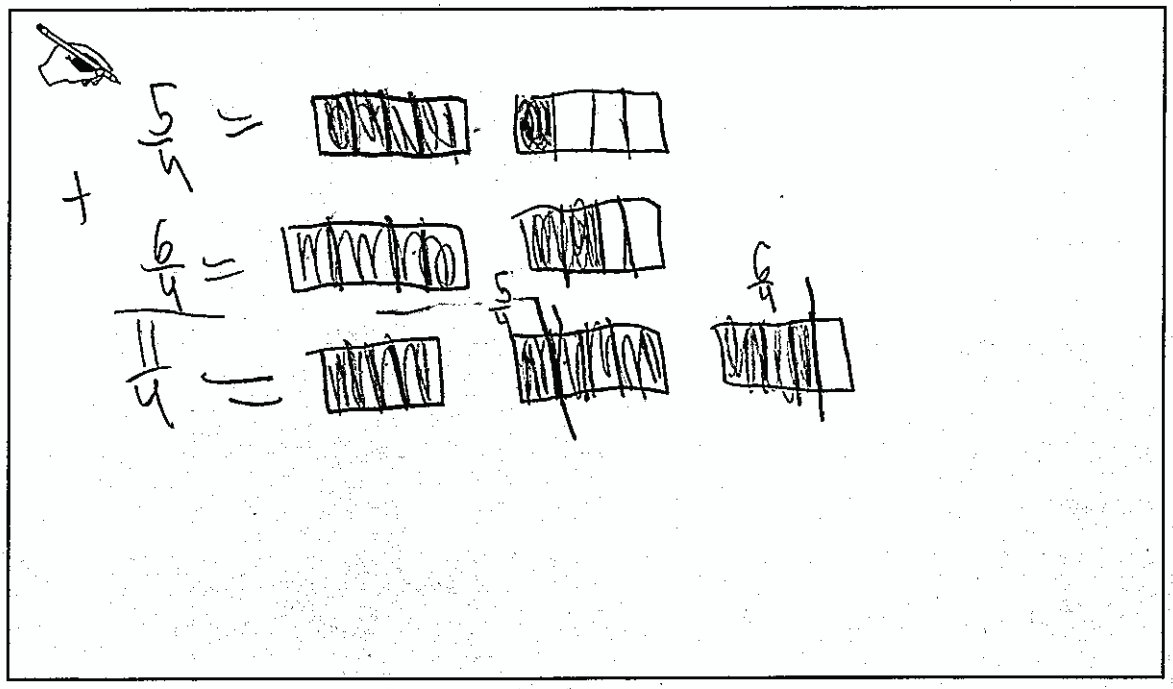


a. Use the space below to write ~~two different~~ equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

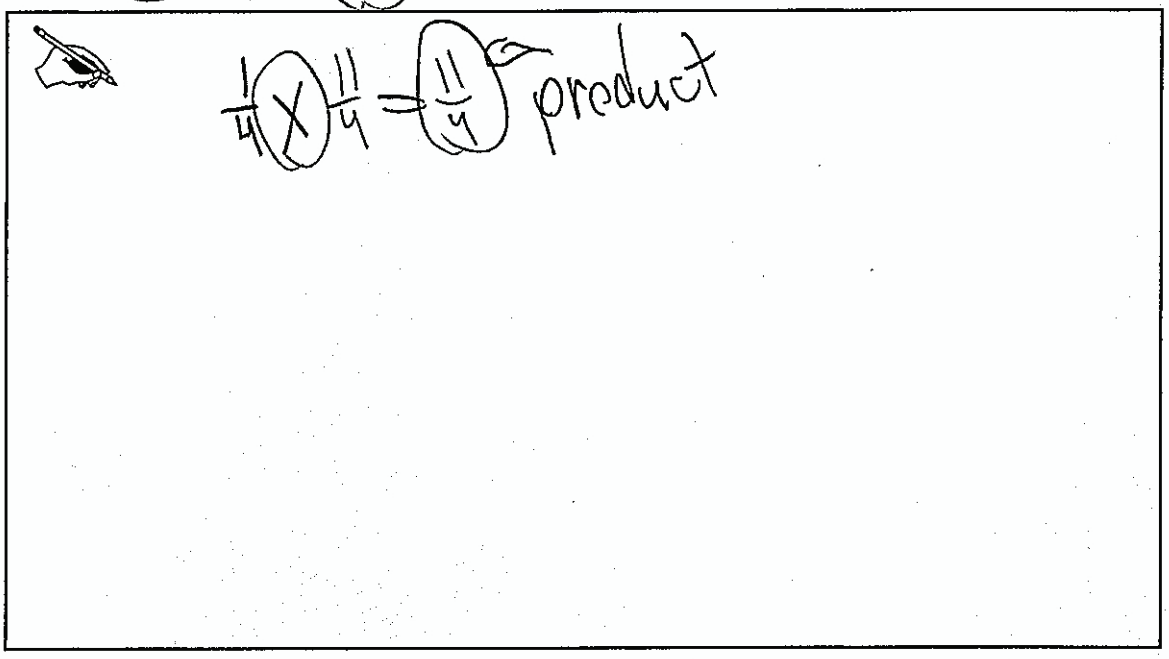
Equation 1	Equation 2
$\frac{6}{4} + \frac{5}{4} = \frac{11}{4}$	$\frac{20}{4} - \frac{9}{4} = \frac{11}{4}$

Litho#: 449636

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 449636

Guide 5 Litho 449636

Total Content Points: 1 (4.NF.B.3)

Total Practice Points: 2 (MP4, MP6)

The student provides a correct subtraction equation and a correct addition equation with an answer of $\frac{11}{4}$ in Part A $\left(\frac{20}{4}-\frac{9}{4}=\frac{11}{4};\ \frac{6}{4}+\frac{5}{4}=\frac{11}{4}\right)$ (4.NF.B.3). However, the equation in Part C is incorrect and does not equal $\frac{11}{4}$ (no credit for 4.NF.B.4a). In Part B, the student's diagram correctly models the equation $\frac{6}{4}+\frac{5}{4}=\frac{11}{4}$ (MP4). The student correctly writes two different equations that equal $\frac{11}{4}$ in Part A (MP6).

Total Awarded Points: 3 out of 4

Task 2. Ms. Hill's Homework Task

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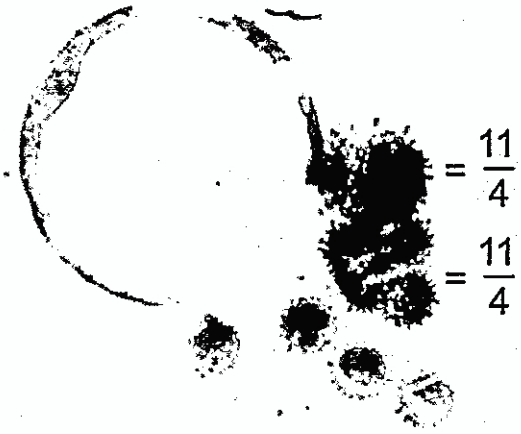
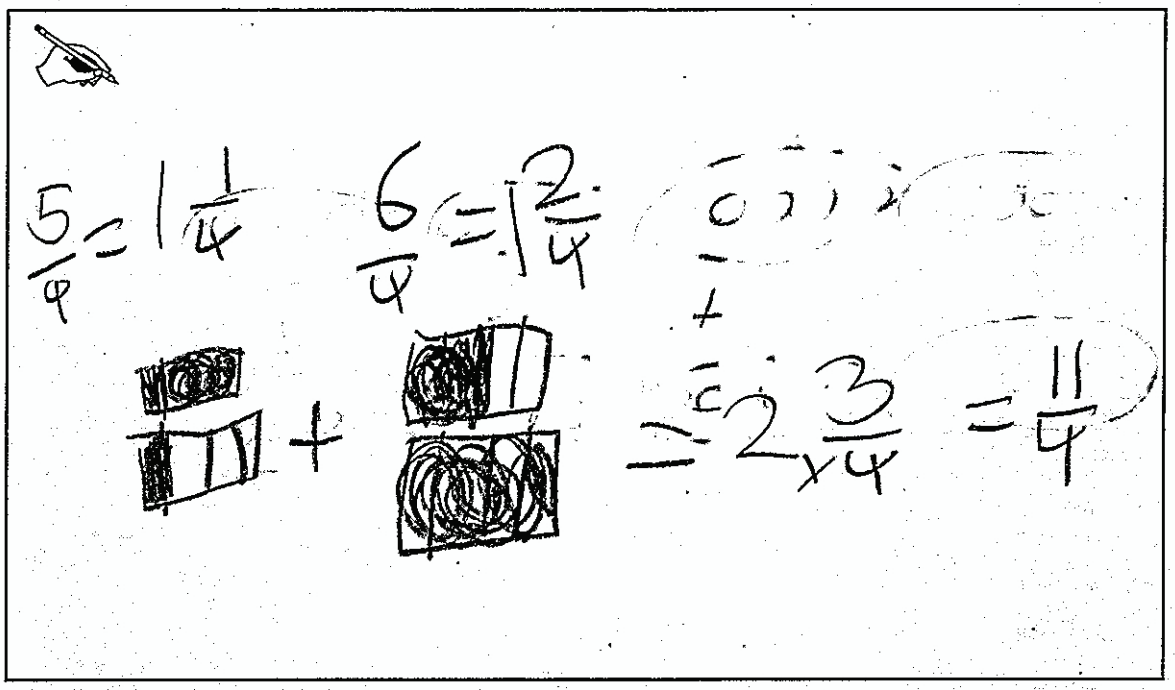


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

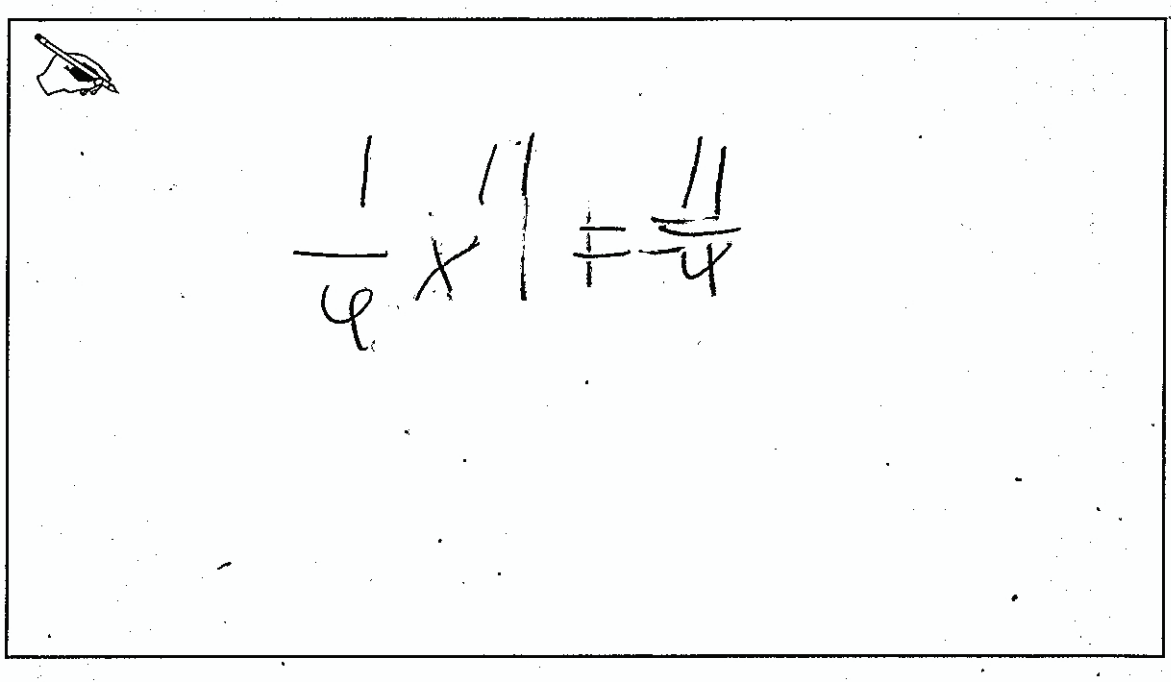
Equation 1	Equation 2
$\frac{5}{4} + \frac{6}{4} = \frac{11}{4}$	$1\frac{1}{4} + 1\frac{1}{2} = \frac{11}{4}$

Litho#: 455213

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 455213

Guide 6 Litho 455213

Total Content Points: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 1 (MP4)

The student provides a correct addition equation in Part A, showing an understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\frac{5}{4}+\frac{6}{4}=\frac{11}{4}\right)$ (4.NF.B.3). In Part C, the student writes the correct equation $\left(\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}\right)$ to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ (4.NF.B.4a). The student provides a correct diagram in Part B modeling $\frac{5}{4}+\frac{6}{4}=\frac{11}{4}$ (MP4). Though both equations in Part A equal $\frac{11}{4}$, one of them includes mixed numbers $\left(1\frac{1}{4}+1\frac{1}{2}=\frac{11}{4}\right)$ (no credit for MP6).

Total Awarded Points: 3 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4}+\frac{2}{4}=\frac{11}{4}$$

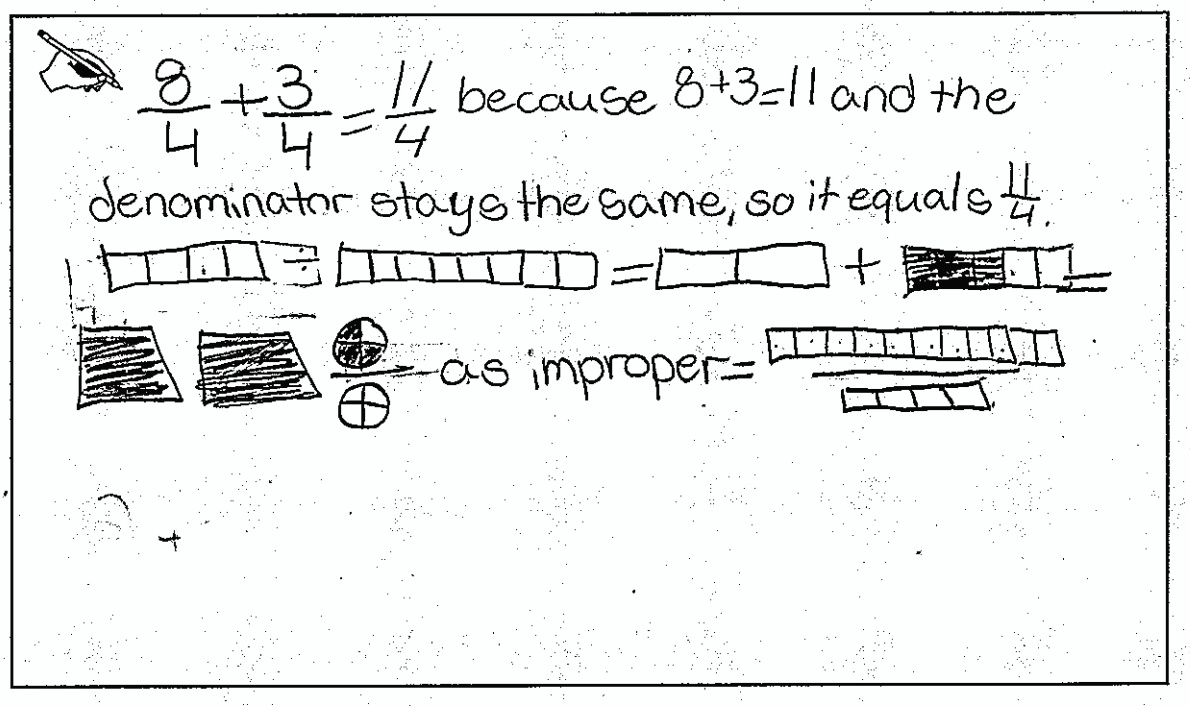
While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

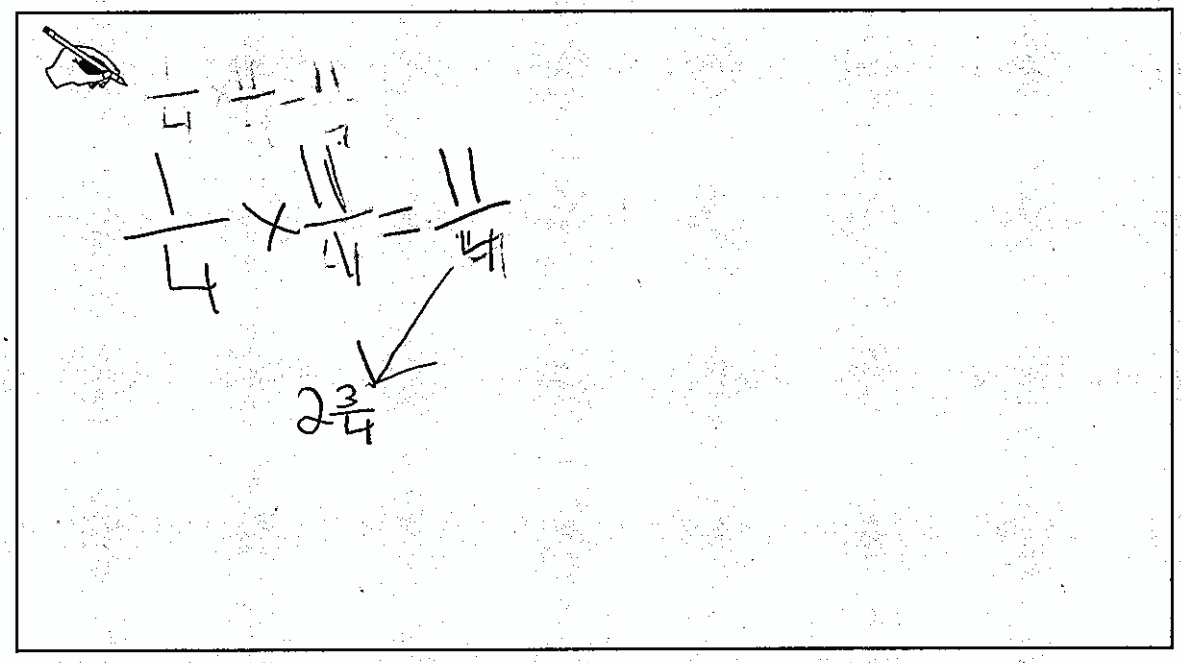
Equation 1	Equation 2
$\frac{3}{4}+\frac{3}{4}=\frac{6}{4}+\frac{5}{4}=\frac{11}{4}$ $1\frac{1}{2}=\frac{3}{2}$ $\frac{11}{4}=2\frac{3}{4}$	$\frac{8}{4}+\frac{3}{4}=\frac{11}{4}$ $2\frac{3}{4}$

Litho#: 471150

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 471150

Guide 7 Litho 471150

Total Content Points: 2 (4.NF.B.3, 4.NF.B.4a)

Total Practice Points: 0

The student provides a correct addition equation with an answer of $\frac{11}{4}$ in Part A, which shows understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\frac{8}{4}+\frac{3}{4}=\frac{11}{4}\right)$ (4.NF.B.3). In Part C, the student writes the correct equation $\frac{1}{4}\times\frac{11}{1}=\frac{11}{4}$ (4.NF.B.4a). In Part B, the student's diagram does not correctly model $\frac{8}{4}+\frac{3}{4}=\frac{11}{4}$ (no credit for MP4). The student writes an incorrect equation in Part A $\left(\frac{3}{4}+\frac{3}{4}=\frac{6}{4}+\frac{5}{4}=\frac{11}{4}\right)$ (no credit for MP6).

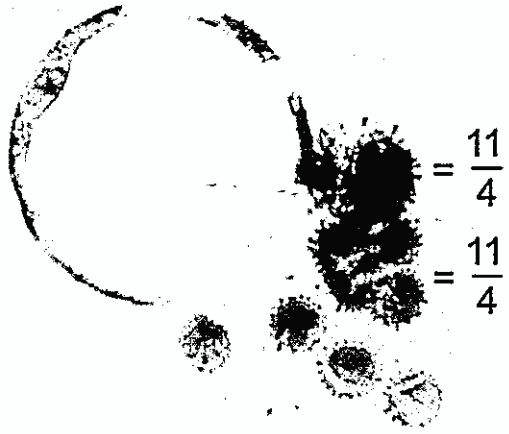
Total Awarded Points: 2 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

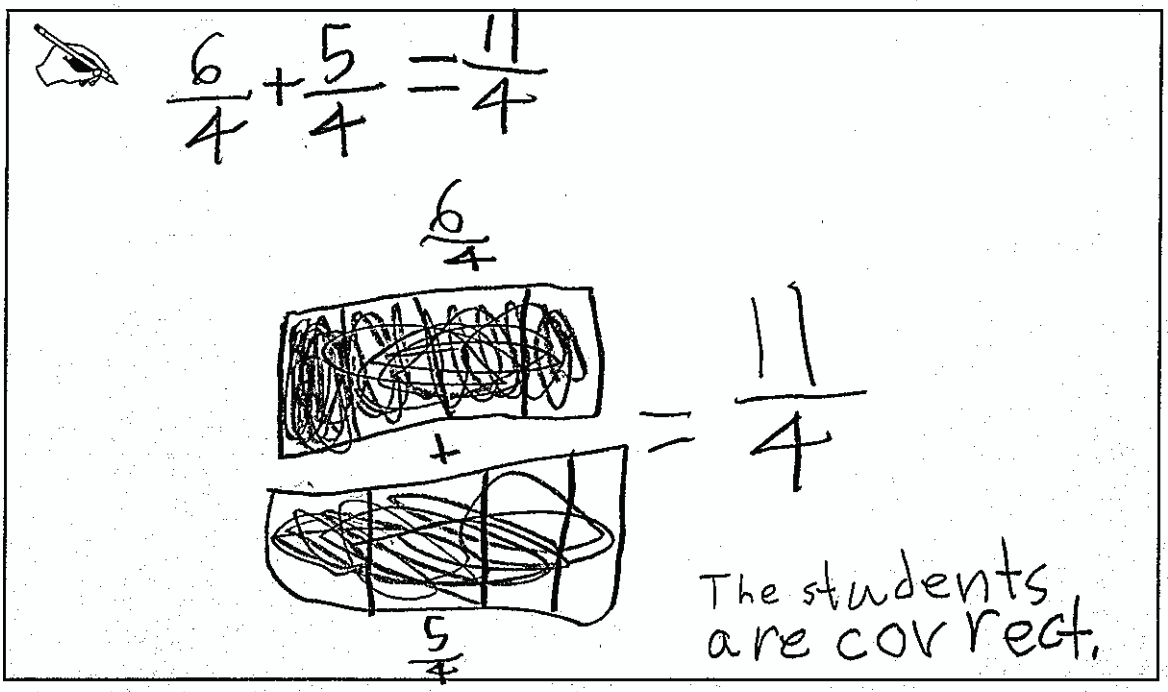


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

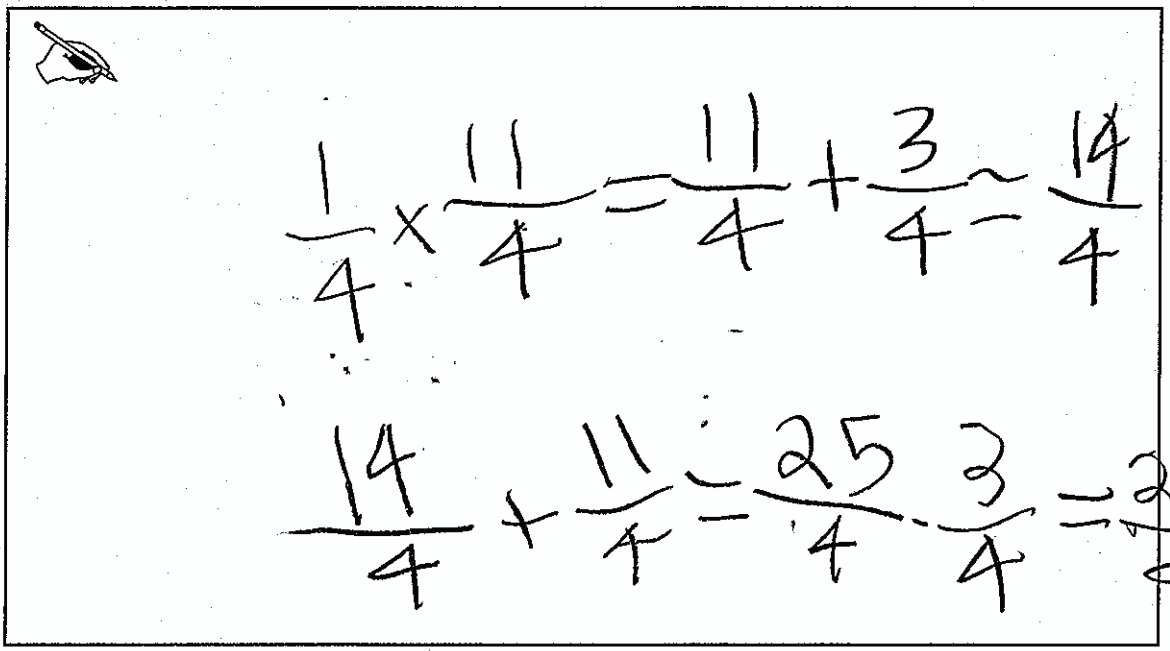
Equation 1	Equation 2
$\frac{6}{4} + \frac{5}{4} = \frac{11}{4}$	$\frac{7}{4} + \frac{4}{4} = \frac{11}{4}$

Litho#: 448926

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 448926

Guide 8 Litho 448926

Total Content Points: 1 (4.NF.B.3)

Total Practice Points: 1 (MP6)

The student provides correct addition equations with answers of $\frac{11}{4}$ in Part A, which shows understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\text{e.g., } \frac{6}{4}+\frac{5}{4}=\frac{11}{4}\right)$ (4.NF.B.3). In Part C, the student does not write a correct equation $\left(\frac{1}{4}\times\frac{11}{4}=\frac{11}{4}+\frac{3}{4}=\frac{14}{4} \ ...\right)$ (no credit for 4.NF.B.4a). The diagram in Part B does not correctly model $\frac{6}{4}+\frac{5}{4}=\frac{11}{4}$ (no credit for MP4). The student correctly writes two different equations that equal $\frac{11}{4}$ in Part A $\left(\frac{6}{4}+\frac{5}{4}=\frac{11}{4},\ \frac{7}{4}+\frac{4}{4}=\frac{11}{4}\right)$ (MP6).

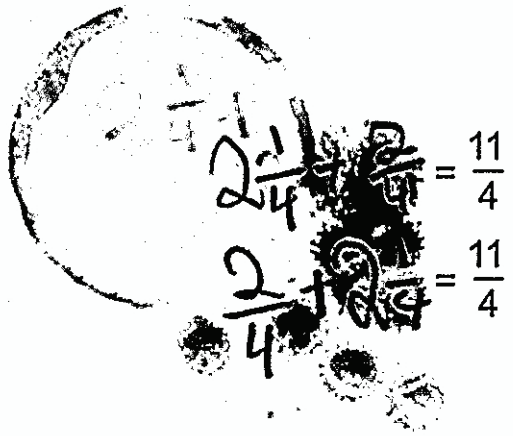
Total Awarded Points: 2 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

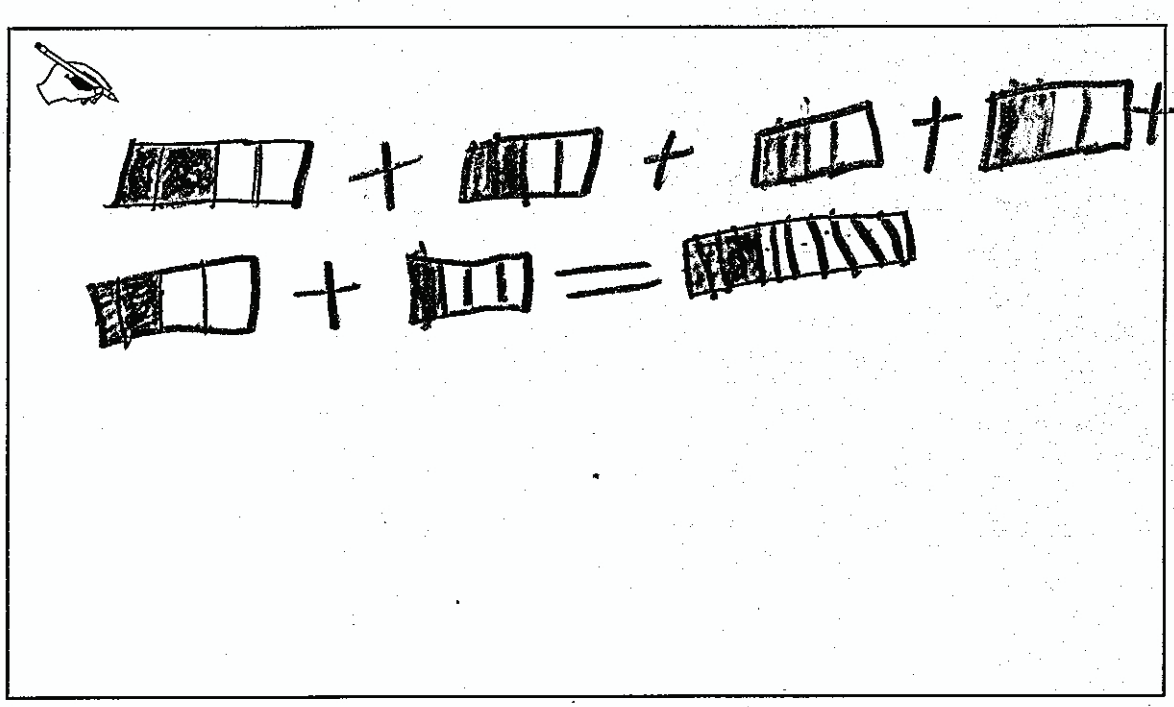


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

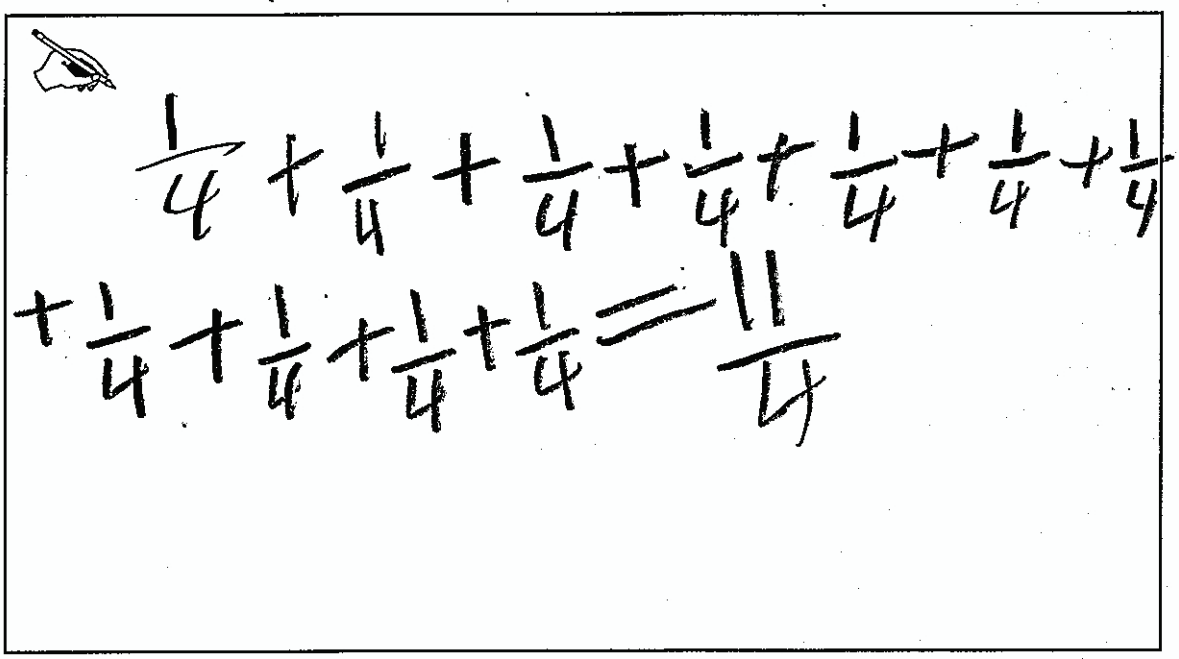
Equation 1	Equation 2
$\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{1}{4}=\frac{11}{4}$	$\frac{2}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{1}{4}+\frac{2}{4}=\frac{11}{4}$

Litho#: 449829

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 449829

Guide 9 Litho 449829

Total Content Points: 1 (4.NF.B.3)

Total Practice Points: 1 (MP6)

The student provides correct addition equations with an answer of $\frac{11}{4}$ in Part A, which shows understanding of a fraction $\frac{a}{b}$ with $a > 1$ as a sum of fractions $\frac{1}{b}$ $\left(\text{e.g., } \frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{2}{4}+\frac{1}{4}=\frac{11}{4}\right)$ (4.NF.B.3). In Part C, the student incorrectly provides an addition equation instead of the multiplication equation $\frac{11}{4}=11\times\frac{1}{4}$ (no credit for 4.NF.B.4a). The diagram in Part B is imprecise, indicating an answer of $\frac{4}{11}$ (no credit for MP4). The student correctly writes two different equations in Part A (MP6).

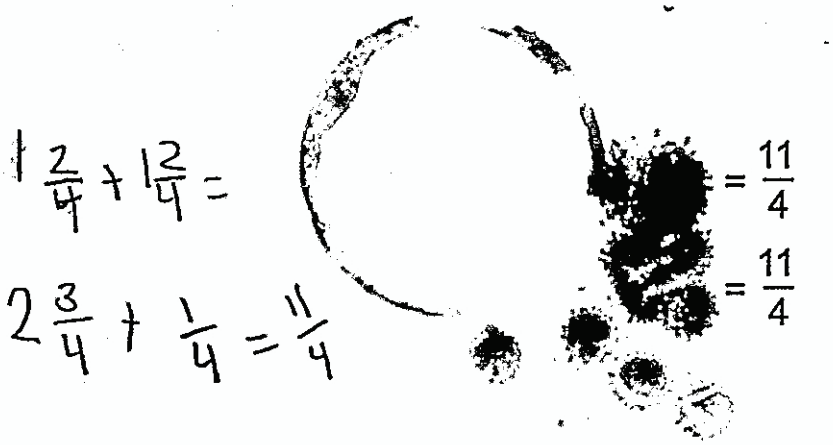
Total Awarded Points: 2 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

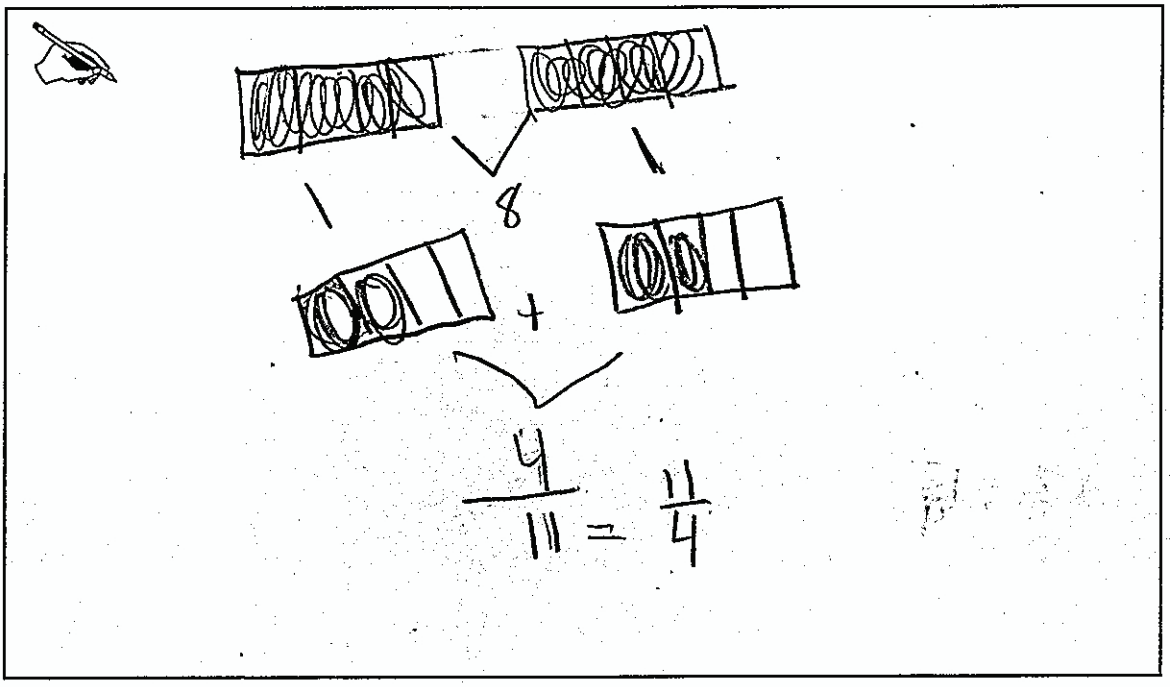


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

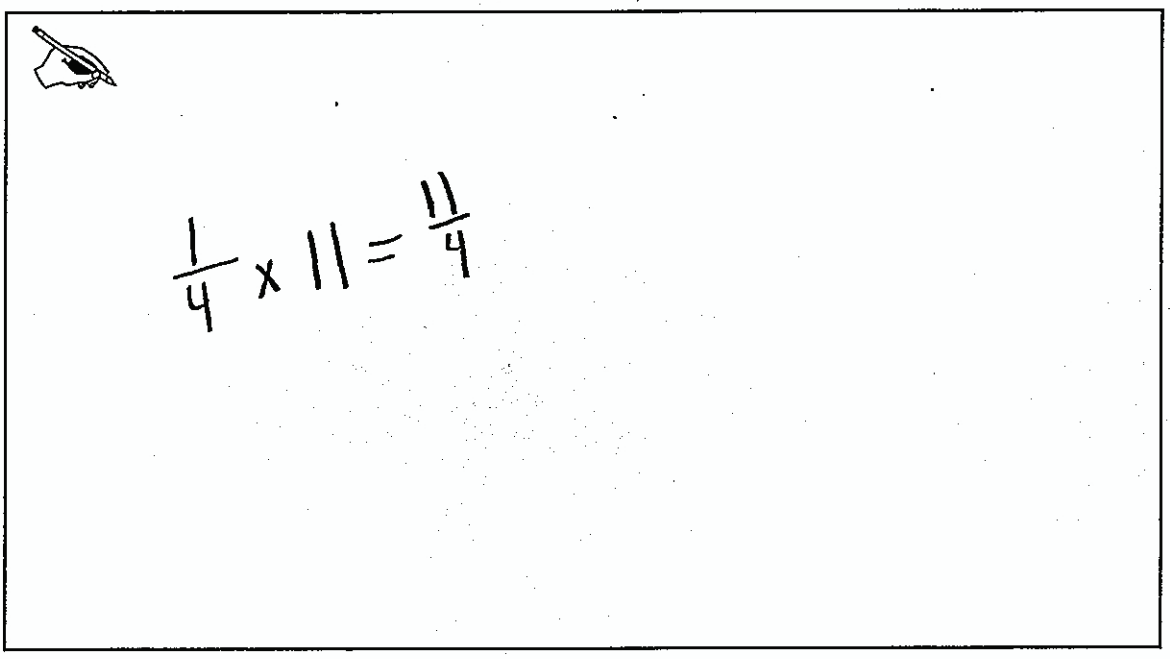
Equation 1	Equation 2
$1\frac{2}{4} + 1\frac{2}{4}$	$2\frac{3}{4} + \frac{1}{4} = \frac{11}{4}$

Litho#: 454951

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 454951

Guide 10 Litho 454951

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

Total Practice Points: 0

The student does not provide a correct addition or subtraction equation with an answer of $\frac{11}{4}$ in Part A (no credit for 4.NF.B.3). The student writes the correct equation $\frac{1}{4} \times 11 = \frac{11}{4}$ in Part C to show understanding of a fraction $\frac{a}{b}$ as a multiple of $\frac{1}{b}$ (4.NF.B.4a). The student does not provide a correct diagram in Part B (no credit for MP4). The student does not correctly write two different equations that equal $\frac{11}{4}$ in Part A (no credit for MP6).

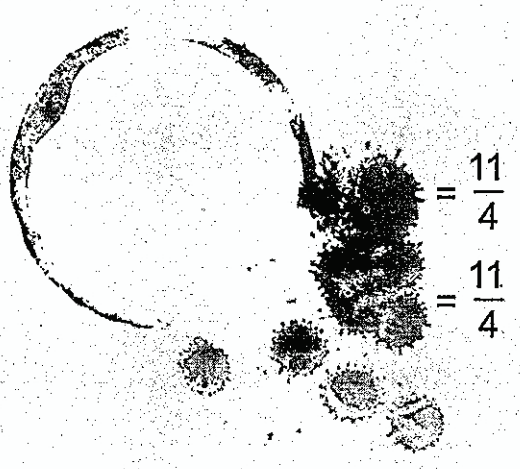
Total Awarded Points: 1 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

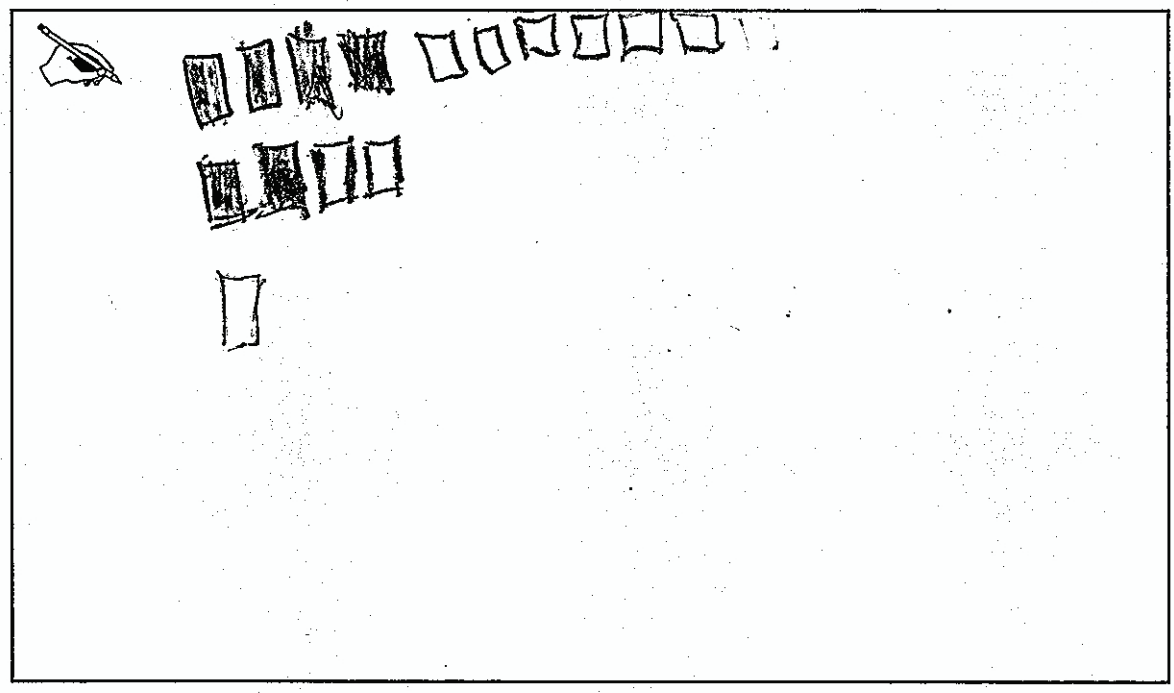


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

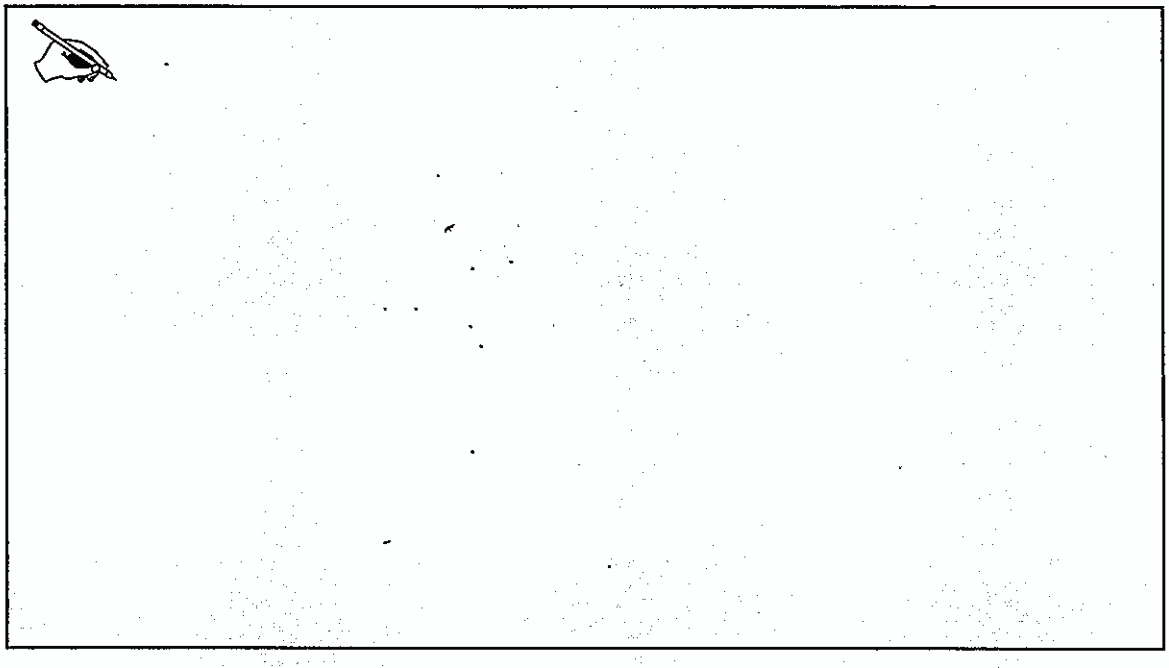
Equation 1	Equation 2
$\frac{9}{4} + \frac{2}{4} = \frac{11}{4}$ They were correct.	$\frac{6}{4} + \frac{5}{2} = \frac{11}{4}$

Litho#: 460590

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 460590

Guide 11 Litho 460590

Total Content Points: 1 (4.NF.B.3)

Total Practice Points: 0

The student provides a correct addition equation with an answer of $\frac{11}{4}$ in Part A, showing understanding of a fraction $\frac{a}{b}$ with $a > 1$ as the sum of fractions $\frac{1}{b}$ $\left(\frac{9}{4}+\frac{2}{4}=\frac{11}{4}\right)$ (4.NF.B.3). No equation is given in Part C (no credit for 4.NF.B.4a). The diagram in Part B does not correctly model the equation from Part A (no credit for MP4). One of the equations in Part A is incorrect $\left(\frac{6}{9}+\frac{5}{2}=\frac{11}{4}\right)$ (no credit for MP6).

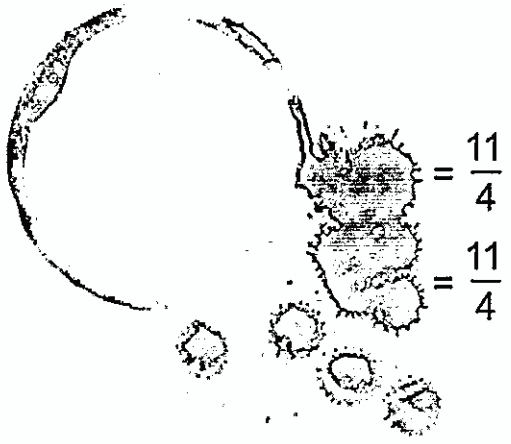
Total Awarded Points: 1 out of 4

Task 2. Ms. Hill's Homework Task

For homework, Ms. Hill asked her students to rewrite the following equation so that the left side of the equation does not include any mixed numbers:

$$2\frac{1}{4} + \frac{2}{4} = \frac{11}{4}$$

While checking the homework, Ms. Hill spilled coffee on the papers. Now she cannot read the equations that appear below. Assume that both equations are true.

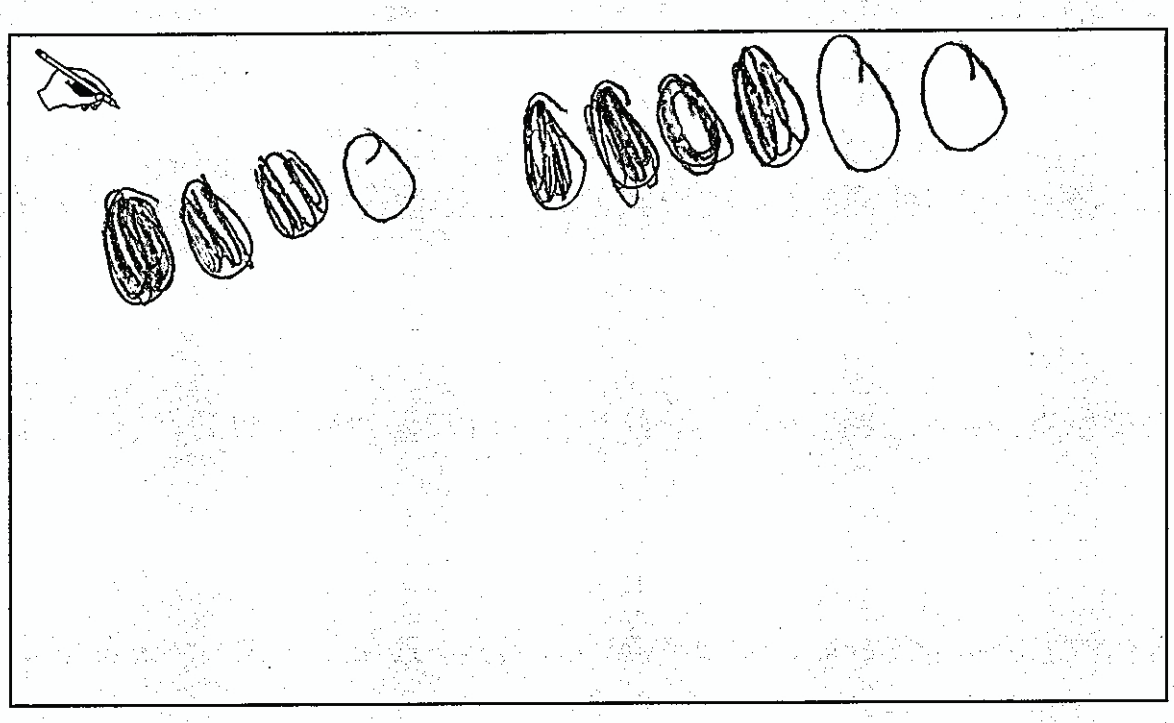


a. Use the space below to write two different equations that equal $\frac{11}{4}$ and do not include any mixed numbers. Be sure to use fourths in your equations.

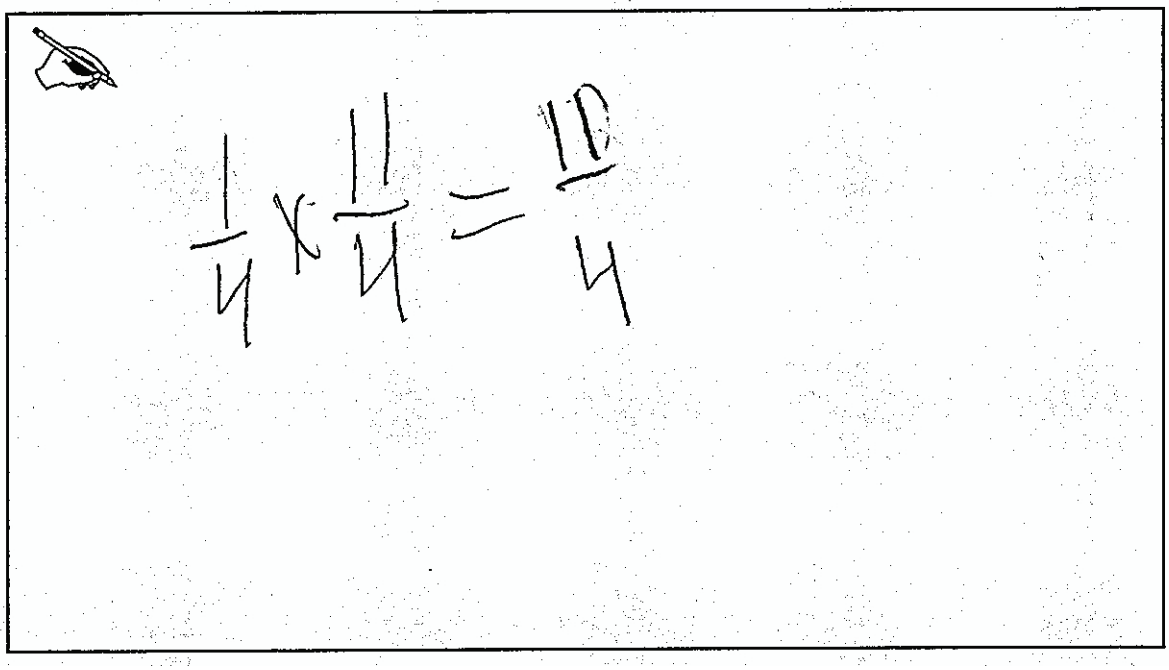
Equation 1	Equation 2
$\frac{3}{4} + \frac{6}{4} = \frac{11}{4}$	$\frac{6}{4} \quad \frac{5}{4} = \frac{11}{4}$

Litho#: 455312

b. Choose one of your equations and draw a diagram to show it is correct.



c. Ms. Hill says that because she sees so many fourths in this problem, she can use multiplication to solve this problem if she uses $\frac{1}{4}$ as a factor. Write a multiplication equation that has $\frac{1}{4}$ as a factor and $\frac{11}{4}$ as the product.



Litho#: 455312

Guide 12 Litho 455312

Total Content Points: 0

Total Practice Points: 0

The student does not provide a correct addition or subtraction equation in Part A, as one equation would result in a sum of $\frac{9}{4}$ and the other is missing an operator (no credit for 4.NF.B.3). The equation in Part C is incorrect $\left(\frac{1}{4} \times \frac{11}{4} = \frac{11}{4}\right)$ (no credit for 4.NF.B.4a). The student does not provide a correct diagram in Part B to model an equation from Part A (no credit for MP4). The student does not correctly write two different equations that equal $\frac{11}{4}$ in Part A (no credit for MP6).

Total Awarded Points: 0 out of 4