5.NF.A

Use equivalent fractions as a strategy to add and subtract fractions.

1. Find the sum. 2. Find the difference.

3. Sara has feet of cloth. She used foot to make a bow. Which expression could be used to correctly determine the amount of cloth, in feet, that remains?

A. 1 B. 1 C. 1 D. 1

4. George says that, to subtract fractions with different denominators, you always have to multiply the denominators to find the common unit; for example:

Use what you know about subtracting fractions to state whether George is correct or not.  
Justify your thinking.

5. In a race, the-second place finisher crossed the finish line minutes after the winner. The third-place finisher was minutes behind the second-place finisher. The third-place finisher took minutes. How long did the winner take?

6. Lila collected the honey from 3 of her beehives. From the first hive she collected gallon of honey. The last two hives yielded gallon each.

How many gallons did Lila collect from her hive? Draw a diagram to support your answer.

**Teacher Material**

5.NF.A

Use equivalent fractions as a strategy to add and subtract fractions.

| **Question** | **Claim** | **Key/Suggested Rubric** |
| --- | --- | --- |
| 1[[1]](#footnote-1) | 1 | **1 point:** 1 or 2 |
| 21 | 1 | **1 point:**  or |
| 31 | 1 | **1 point:** Selects D |
| 4[[2]](#footnote-2) | 3 | **1 point:** Answers will vary. Students may state that George is correct OR incorrect, with support.  You only need to multiply the denominators if the denominators do not have a common factor. If they do have a common factor, then you may only need to multiply by the other factor. In this case, 24 could be the common denominator since 8 and 6 are both factors of 24. |
| 5[[3]](#footnote-3) | 2 | **1 point:** *x* + 1 + 2 = 3 minutes  *x =* 31 minutes |
| 6[[4]](#footnote-4) | 4 | **2 points:** Answers may vary. Draws a diagram AND determines the number of gallons collected.  A rectangle divided into 12 parts, with 4 columns and 3 rows. The top two rows (8 cells) are shaded gray. In the bottom row, the first 3 cells are shaded blue.  + (above ) + (below)  A rectangle divided into 12 parts, with 4 columns and 3 rows. The 3 cells in the first column are shaded green.  =  =  Total gallons of honey is + + =  Just move one of the squares from the second rectangle to the first and it will show you the total number of twelfths as a whole and more.  **1 point:** Answers may vary. Draws a diagram OR determines the number of gallons collected. |

1. From Smarterbalanced.org. Grade 5, Claim 1, Target E Item Specifications. Internet. Available from <http://www.smarterbalanced.org/smarter-balanced-assessments/>; accessed 11/2015. [↑](#footnote-ref-1)
2. From EngageNY.org of the New York State Education Department. Grade 5 Mathematics Module 3, Topic C, Lesson 11. Internet. Available from <https://www.engageny.org/resource/grade-5-mathematics-module-3-topic-c-lesson-11>; accessed 11/2015. [↑](#footnote-ref-2)
3. From EngageNY.org of the New York State Education Department. Grade 5 Mathematics Module 3, Topic D, Lesson 15. Internet. Available from <https://www.engageny.org/resource/grade-5-mathematics-module-3-topic-d-lesson-15>; accessed 11/2015. [↑](#footnote-ref-3)
4. From EngageNY.org of the New York State Education Department. Grade 5 Mathematics Module 3, mid-module assessment. Internet. Available from <https://www.engageny.org/resource/grade-5-mathematics-module-3>; accessed 11/2015. [↑](#footnote-ref-4)