4th Grade Unit 3: Fractions-Add & Subtract (Form A)

Name _____ **Date** _____

Standard:

21.NF.3 recognize that a fraction a/b with a > 1 as a sum of fractions 1/b

22.NF.3_a. model and explain addition and subtraction of fractions as joining and separating parts referring to the same whole

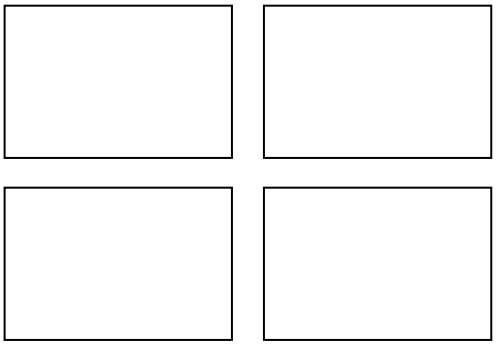
23.NF.3_b. decompose a fraction, by using a visual fraction model, into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify reasoning using visual fraction models (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8; 8/8 = 7/8 + 1/8)

24.NF.3_c. add and subtract mixed numbers with like denominators (e.g., by replacing each mixed number with an equivalent fraction and/or by using properties of operations and the relationship between addition and subtraction)

25.NF.3_d. solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem

1. Write a mixed number for the fraction $\frac{22}{6}$:

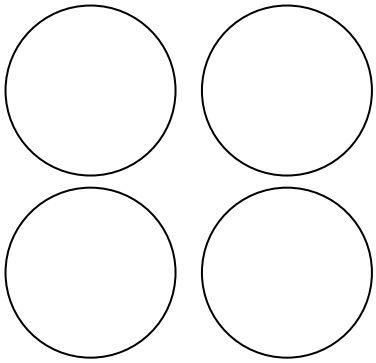
   Use the rectangles below to prove your answer.



2. Write an improper fraction for the mixed number:

   $2\frac{3}{8}$ =

   Use the circles below to prove your answer.



3. Gloria picked $2\frac{3}{4}$ pounds of peaches from a tree in her backyard. She gave $1\frac{1}{4}$ to her neighbor Max. How many pounds of peaches does Gloria have left?

4. Which sum is NOT equal to $\frac{16}{12}$?

   a. $\frac{4}{12} + \frac{4}{12} + \frac{4}{12} + \frac{4}{12}$

   b. $\frac{12}{12} + \frac{2}{12} + \frac{2}{12}$

   c. $1 + \frac{1}{12} + \frac{1}{12} + \frac{1}{12} + \frac{1}{12}$

   d. $1 + \frac{2}{12} + \frac{2}{12} + \frac{2}{12}$

4th Grade Unit 3: Fractions-Add & Subtract (Form A)

Name _____ **Date** _____

5. Show two ways to write $\frac{10}{4}$ as a sum of fractions:

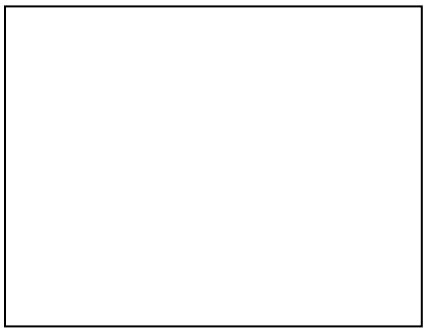
   a. _____

   b. _____

6. Solve:

$$1\frac{3}{4} - \frac{2}{4} = \square$$

7. Fiona, José, and Kevin cut the grass. Fiona cut $\frac{5}{9}$ of the grass, and José cut $\frac{3}{9}$ of the grass. Kevin cut the rest of the grass. Use the box below to represent the grass. Show the fraction of the grass that each person cut.

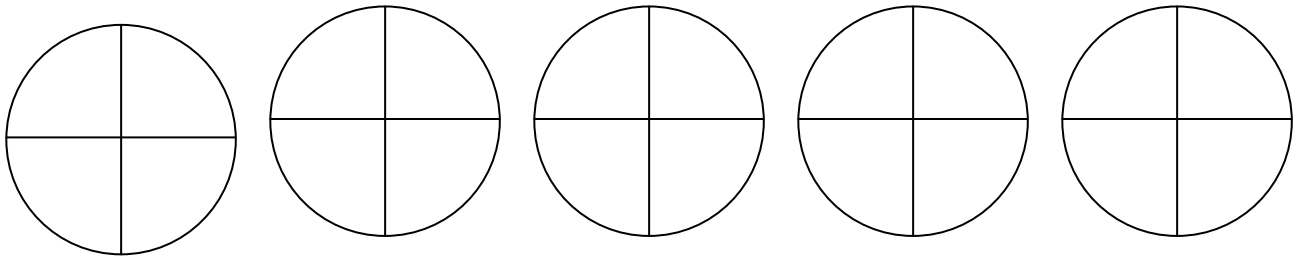


What fraction of the grass did Kevin cut?_____

8. A pancake recipe calls for $\frac{3}{4}$ cup of buttermilk, $\frac{1}{4}$ cup of milk, and $\frac{2}{4}$ cup of oil. How much liquid is needed to make the pancakes? Write your answer as a mixed number and as an improper fraction:

   Draw a model to justify your answer:

9. Jesse ordered 5 pizzas for his party. He had $1\frac{3}{4}$ pizzas left over. Shade the circles below to show a model of the pizza that was eaten.



Answer: _____

4th Grade Unit 3: Fractions-Add & Subtract (Form A)

Name _____ **Date** _____

10. At the weekly track meet, the Robertson Star high jumpers won their event. Eve jumped $\frac{5}{6}$ yard , Jackie jumped $\frac{2}{6}$ yard and Rhonda jumped $\frac{3}{6}$ yard. How many yards did the girls jump? Report your answer as a mixed number. Use the space below to show your work.

---

11. Tim had three identical measuring cups filled with milk. The first cup was $\frac{4}{8}$ full. The second cup was $\frac{1}{8}$ full. The third cup was $\frac{5}{8}$ full. Will all of the milk fit into one of the measuring cups? Use the space below to answer the question. Draw a picture to explain your answer.

---

12. At lunch, Keisha shared a pack of 10 cookies with her friends. She ate 2 cookies, Ron ate 3, and Carol ate 2. Keisha said that they ate $\frac{9}{10}$ of her cookies. Is she correct? If not, what mistake did she make?

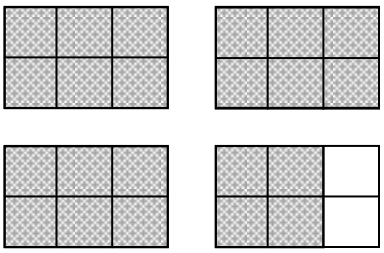
4th Grade Unit 3: Fractions-Add & Subtract (Form A)

Name _____ **Date** _____

Answer Key

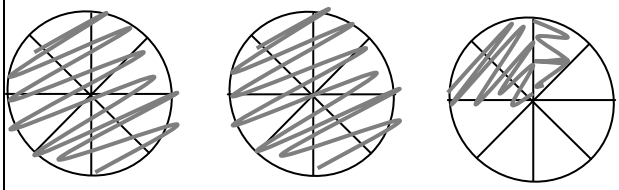
1. Write a mixed number for the fraction $\frac{22}{6} = 3\frac{4}{6}$

Use the rectangles below to prove your answer.



2. Write an improper fraction for the mixed number:

$2\frac{3}{8} = \frac{19}{8}$



3. $1\frac{2}{4}$ or $1\frac{1}{2}$ pounds of peaches

4. a. $\frac{4}{12} + \frac{4}{12} + \frac{4}{12} + \frac{4}{12}$

b. $\frac{12}{12} + \frac{2}{12} + \frac{2}{12}$

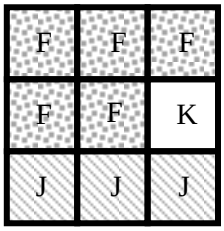
c. $1 + \frac{1}{12} + \frac{1}{12} + \frac{1}{12} + \frac{1}{12}$

(d.) $1 + \frac{2}{12} + \frac{2}{12} + \frac{2}{12}$

5. *Answers will vary as long as the sum of numerators is 10 and the denominator remains 4.*

6. $1\frac{3}{4} - \frac{2}{4} = 1\frac{1}{4}$

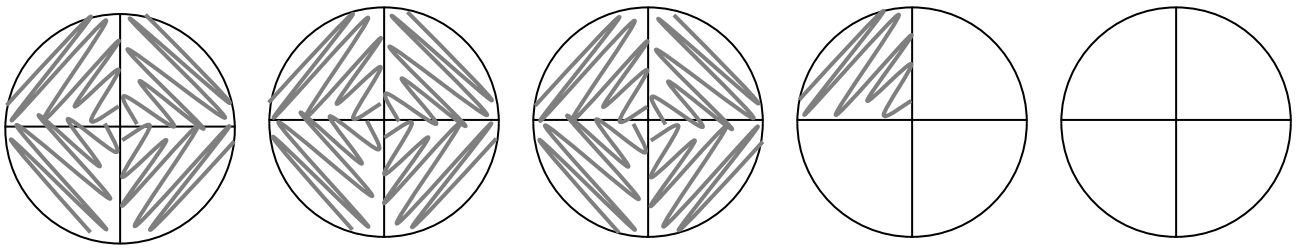
7. Kevin cut $\frac{1}{9}$ of the grass.



8. $1\frac{2}{4} = \frac{6}{4}$

Acceptable models will show one whole shaded and 2/4 of the next circle or rectangle. Students may also choose to plot the fractions on a number line.

9. Answer: $3\frac{1}{4}$ pizzas were eaten at Jesse's party.

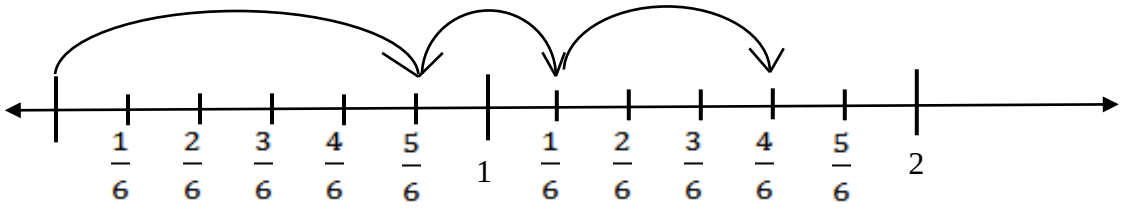


4th Grade Unit 3: Fractions-Add & Subtract (Form A)

Name _____ **Date** _____

10. $\frac{10}{6} = 1\frac{4}{6}$ or $1\frac{2}{3}$

Use the space below to show your work.



---

11. *No, 4/8 + 1/8 + 5/8 = 10/8, which is more than one whole cup.*
Pictures will vary, but should show one whole with 2/8 of a second diagram shaded.

---

12. No, Keisha is not correct. Together they ate only 7/10 of her cookies. Keisha added incorrectly.