More Adding and Subtracting Fractions

Use what you know about adding and subtracting fractions to solve problems.

Carla wants to make a Veggie Toss using eggplant, green peppers, spring onions, and mushrooms. Besides the eggplant, how many pounds of the other ingredients does she need in all?

Use data from the recipe.

Step 1: Find the amount of green peppers and spring onions. $\frac{1}{3}$ and $\frac{1}{4}$

Step 2: To add these amounts, find a common denominator for both fractions and rewrite each fraction with that denominator.

$$\frac{1}{3} + \frac{1}{4} = \frac{4}{12} + \frac{3}{12} = \frac{7}{12}$$

Step 3: Add the amount of mushrooms to the sum from Step 2. Remember to rewrite the addends with a common denominator.

$$\frac{7}{12} + \frac{3}{8} = \frac{14}{24} + \frac{9}{24} = \frac{23}{24}$$

Veggie Toss Recipe	
Eggplant	$\frac{3}{4}$ pound (lb)
Green peppers	$\frac{1}{3}$ pound (lb)
Spring onions	$\frac{1}{4}$ pound (lb)
Mushrooms	$\frac{3}{8}$ pound (lb)

Chop all ingredients to desired size. Toss eggplant with spring onions in olive oil. Add green peppers and saute for 5 minutes. Add mushrooms. Stir. Cover. Simmer over medium low heat until cooked.

Carla needs $\frac{23}{24}$ pound of the other veggies in all.

For **1** through **3**, use the Veggie Toss Recipe.

1. Suppose you wanted to make a Veggie Toss using spring onions and mushrooms. How many pounds of ingredients do you need? _____

2. How much more eggplant than mushrooms does the recipe call for? _____

3. How much more eggplant does the recipe call for than green peppers and spring onions combined? Show your work.

Name _____

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In **1** through **12**, simplify each expression.

1. $\frac{4}{6} + \frac{2}{9}$ _____

2. $\frac{2}{7} + \frac{1}{2}$ _____

3. $\frac{8}{12} + \frac{1}{6}$ _____

4. $\frac{3}{8} + \frac{1}{6}$ _____

5. $\frac{1}{12} + \frac{7}{9}$ _____

6. $\frac{4}{18} + \frac{2}{9}$ _____

7. $\frac{1}{3} + \frac{1}{4}$ _____

8. $\frac{5}{15} + \frac{3}{5}$ _____

9. $\frac{1}{2} - \left(\frac{1}{8} + \frac{1}{8}\right)$ _____

10. $\frac{3}{4} + \left(\frac{1}{4} - \frac{1}{6}\right)$ _____

11. $\left(\frac{1}{2} + \frac{3}{20}\right) - \frac{2}{20}$ _____

12. $\left(\frac{2}{5} + \frac{1}{5}\right) - \frac{3}{10}$ _____

13. A plumber is fitting a water pipe that is $\frac{3}{4}$ foot long on to a water pipe that is $\frac{2}{12}$ foot long. How long will the finished pipe be?

A $\frac{11}{12}$ foot

C $\frac{2}{12}$ foot

B $\frac{8}{16}$ foot

D 1 foot

14. Joel made some muffins. He gave $\frac{1}{4}$ of the muffins to a neighbor. He took $\frac{3}{8}$ of the muffins to school. What fraction of the muffins is left?

A $\frac{4}{12}$

C $\frac{5}{12}$

B $\frac{3}{8}$

D $\frac{8}{8}$

15. Carl has three lengths of cable, $\frac{5}{6}$ yard long, $\frac{1}{4}$ yard long, and $\frac{2}{3}$ yard long. He needs at least 1 yard of cable.

a Which two pieces together make a length at least 1 yard and closest to 1 yard? _____

b If Carl uses the two shortest pieces, how much more cable would he need?

_____

c After Carl has used 1 yard of cable, how much cable will he have left? Explain how you found your answer.

_____

_____