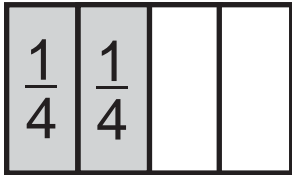


Activity # 2: Adding and Subtracting Like Fractions: (Answer all questions using correct spelling and grammar.)

Definition: Like Fractions are two or more fractions with the same denominator. For example: $1/4 + 1/4$ or $7/5 - 2/5$ would be two different sets of Like Fractions.

Let's say we wish to add $1/4 + 1/4$: Consider the diagram below:



Can you see that $1/4 + 1/4 = 2/4$ or $1/2$?

Similarly: $4/9 + 3/9 = 7/9$
 $6/7 + 8/7 = 14/7$ or $2/1$ or 2
 $2/4 + 5/4 = 7/4$ or $1 + 3/4$ or $1 \frac{3}{4}$
 $7/5 - 3/5 = 4/5$
 $8/3 - 7/3 = 1/3$
 $4/6 - 1/6 = 3/6$ or $1/2$

Based on the above examples, what rule do you think governs adding and subtracting Like Fractions?

1. I think the rule is: _____

2. Explain why you think the rule you stated above makes sense.

Your explanation: _____

3. Some exercises: a) $2/7 + 3/7 =$ ____ b) $3/11 + 8/11 =$ ____ c) $6/5 - 1/5 =$ ____

d) $11/12 - 6/12 =$ ____ e) $23/12 + 10/12 =$ ____ f) $19/16 - 3/16 =$ ____

4. Would it make any difference in your answers if these examples had been given in column form? Such as:

$$\begin{array}{r} \frac{2}{7} \\ + \frac{3}{7} \\ \hline \end{array}$$

Your explanation: _____

5. Consider this: $\frac{2}{7} + \frac{3}{7} = \frac{(2+3)}{7}$

Do you agree with what is written above? Yes or no (circle one).

Your explanation: _____

6. Consider this: $\frac{(3+4)}{4} = \frac{(3+\cancel{4})}{\cancel{4}}$ (the fours are being canceled)

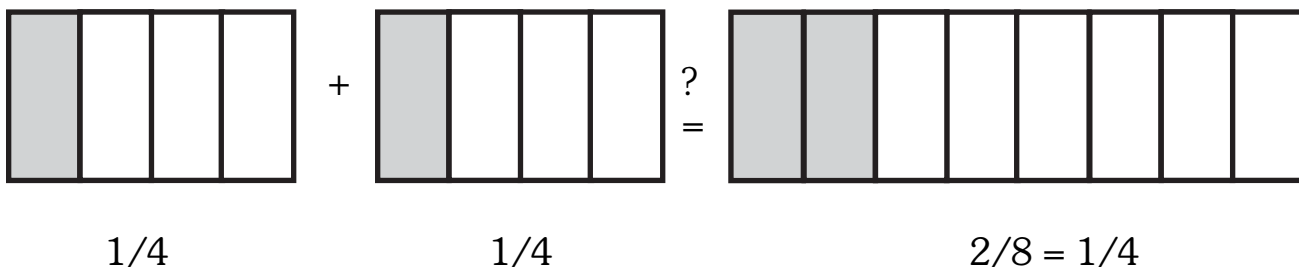
Do you agree with what is written above? Yes or no (circle one).

Your Explanation: _____

7. Consider this: Okay, adding $1/4 + 1/4$ **DOES NOT GIVE** $2/8$. In other words, when adding Like Fractions we **do not add the denominators!** Explain using the meaning of a numerator and a denominator why we do not add the denominators.

Your explanation: _____

8. Consider this:



Does the diagram above seem correct to you? Yes or No (Circle one).

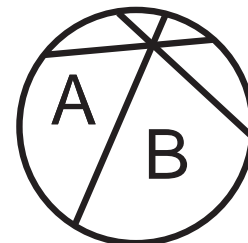
Your explanation: _____

9. George has two candy bars, a small one and a large one.
If he eats $\frac{1}{2}$ of each, has he eaten a whole candy bar? In other words does $\frac{1}{2} + \frac{1}{2} = 1$ in this case? Yes or No (circle one).

Your explanation: _____

10. A pie is cut into 6 pieces which are not of equal size.

a). Do the two pieces **A** and **B** represent $\frac{2}{6}$ or $\frac{1}{3}$ **of the pie**?



yes or no (Circle one).

Your explanation: _____

b) What fraction do the two pieces **A** and **B** represent with respect to the *number of pieces* the pie has been cut into?

Your answer: _____

Your explanation: _____

11. Charlene has 2 identical pieces of chewing gum.

A

B

If she is with three of her friends and wishes to equally share her gum, what fraction of a piece will each friend receive if the problem is viewed in the two different ways presented below?

a) Both pieces, A and B combined, are considered the “whole.”

Your answer: _____

Your explanation: _____

b) By “whole” we mean either piece **A** or **B**, but not both pieces.

Your answer: _____

Your explanation: _____

12. Using your own words, tell what you learned in doing Activity # 2. Discuss anything you may have found confusing about the Activity.
