Name: _____ **Adding and Subtracting '*Like*' Fractions**

Let's cut up a hexagon into 6 pieces:

Each piece  **is** $\frac{1}{6}$ **of the hexagon.**

And  **is** $\frac{4}{6}$ **of the hexagon.**

So, what if we wanted to add

$$\frac{1}{6} + \frac{4}{6} ?$$

That would be . . .

 $\frac{1}{6} + \frac{4}{6} = \frac{5}{6}$

How about this pizza? There are 8 pieces,

so 1 slice is $\frac{1}{8}$ **of the pizza.**

3 slices is $\frac{3}{8}$ **and 4 slices is** $\frac{4}{8}$**.**

Let's add 3 slices plus 4 slices equals 7 slices.

So, $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$**.**

Notice that we are *just* adding the <u>numerators</u>.

You can ONLY do this when the DENOMINATORS are the SAME.

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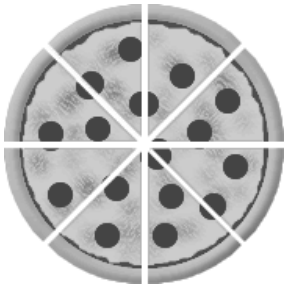
When we add (or subtract) fractions with the SAME denominator (bottom) we add (or subtract) the numerators and keep the denominator. Fractions with the same denominator are sometimes called '*like* fractions'.

Examples:

$\frac{3}{8} + \frac{4}{8} = \frac{3+4}{8} = \frac{7}{8}$ **and** $\frac{2}{9} + \frac{3}{9} = \frac{2+3}{9} = \frac{5}{9}$

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

Subtraction works a lot like addition.
Here's our pizza again—cut into 8 pieces.



Let's take 7 pieces of pizza (that's 7/8) and eat 3 of them (3/8).

How many pieces will we have left? We'll have 4 pieces left.

That's 4/8 of the pizza.

So, $\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$ **Notice what we did.**

We just subtracted the numerators! $\frac{7}{8} - \frac{3}{8} = \frac{7-3}{8} = \frac{4}{8}$

(This only works for LIKE fractions—when the denominators are the SAME.)

$\frac{9}{10} - \frac{3}{10} =$ $\frac{17}{21} - \frac{3}{21} =$