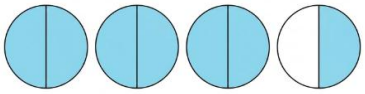
FRACTIONS

Adding and Subtracting

STEP 1:

Make the fractions IMPROPER fractions

$3\frac{1}{2}$ This is a PROPER fraction. If I cut four cookies into halves, and you eat three and a half cookies, you just ate SEVEN HALVES (7/2)



7/2 is an IMPROPER fraction. We need to talk Improper Fractions in this unit.

How do we convert them?

$3\frac{1}{2}$ Multiply the DENONIMATOR (bottom number) by the WHOLE NUMBER (front number) and then ADD the NUMERATOR (top number): 2 x 3 + 1 = 7

$\frac{7}{2}$ is the new improper fraction. It MEANS the same thing, it's just a drunk way of wording it.

Example:

$2\frac{3}{8}$ 8 x 2 + 3 = 19 so….

$\frac{19}{8}$ is the new improper fraction; it's still the SAME fraction.

STEP 2:

Make the DENOMINATORS the same

$\frac{4}{3}+\frac{1}{3}$ Easy. Add the tops,

keep the bottoms the same

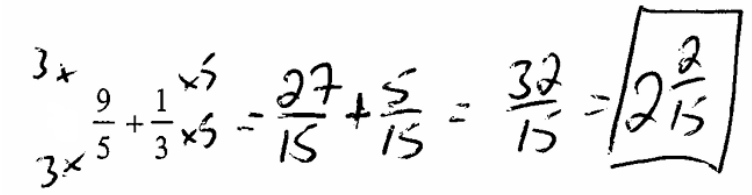
$\frac{4}{3}+\frac{1}{3}=\frac{5}{3}=1\frac{2}{3}$

Notice I turned 5/3 into a proper fraction. How many 3's can I pull out of 5? **1**. If I pull one 3 out of a 5, how much is left behind? **2**

That becomes "One and two thirds"

If the DENOMINATORS are DIFFERENT, multiply each by the other, Top AND Bottom.

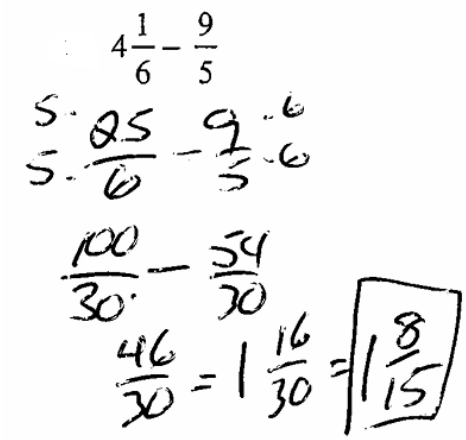
THEN add ONLY the tops; keep the bottoms the SAME.



NOTE: I can pull TWO 15's out of 32, leaving 2 behind.

What about Subtracting?

Same thing.



Step 1: Make all fractions IMPROPER Fractions

(6 x 4 + 1 = 25)

Step 2: Make DENOMINATORS the same

(Multiply tops AND bottoms)

Step 3: Subtract TOPS

Step 4: Convert to PROPER fraction

(How many 30's can I get out of 46?
How much is left?)