FRACTIONS MEMORY AID

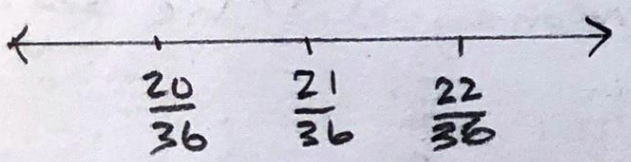
COMPARING FRACTIONS

- UNDERSTAND WITCH FRACTION IS LARGER OR SMALLER
- MUST HAVE A COMMON DENOMINATOR

ex. $\frac{5}{9}$ AND $\frac{7}{12}$

LCM (9, 12) = 36

$\frac{5}{9} = \frac{20}{36}$ < $\frac{7}{12} = \frac{21}{36}$



- IMAGINE ON A NUMBER LINE

MULTIPLYING FRACTIONS

- DO NOT NEED A COMMON DENOMINATOR
- MULTIPLY NUMERATORS
- MULITIPLY DENOMINATORS
- REDUCE IF POSSIBLE

ex. $\frac{2}{3} \times \frac{4}{5} = \frac{2 \times 4}{3 \times 5} = \frac{8}{15}$

DIVIDING FRACTIONS

- KEEP, SWITCH, FLIP
- KEEP THE 1ST FRACTIONS
- SWITCH DIVISION TO MULTIPLICATION
- FLIP THE FRACTION AFTER

ex. $\frac{4}{5} \div \frac{2}{3}$

$\frac{4}{5} \times \frac{3}{2} = \frac{6}{10}$ reduce $\frac{3}{5}$

ADDING AND SUBTRACTING FRACTIONS

- FIND THE COMMON DENOMINATOR
- CONVERT FRACTIONS TO THEIR EQUIVALENT
- ADD / SUBTRACT
- REDUCE IF POSSIBLE

ex. $\frac{2}{3} + \frac{7}{12} - \frac{11}{18}$

- FIND LCM OF ALL 3 DENOMINATORS

LCM (3, 12, 18) = 36

$\frac{2}{3} = \frac{24}{36}$, $\frac{7}{12} = \frac{21}{36}$, $\frac{11}{18} = \frac{22}{36}$

$\frac{24}{36} + \frac{21}{36} - \frac{22}{36}$

Same as...

$\frac{24+21-22}{36} = \frac{23}{36}$

REMEMBER!

- ALWAYS CONVERT MIXED FRACTIONS TO IMPROPER

ex

$2\frac{2}{3}$ $2 \times 3 + 2 = 8$ (new numerator)

Keep denominator

$= \frac{8}{3}$

EQUIVALENT FRACTIONS

MULTIPLY NUMERATOR & DENOMINATOR BY THE SAME NUMBER

TYPES OF WORD PROBLEM

COMPARISON:
- WHAT NUMBER IS BETWEEN?
- WHAT NUMBER IS BIGGER/SMALLER?

MULTIPLICATION:
- ANY FRACTION OF A NUMBER WHEN BOTH ARE GIVEN

ex. $\frac{2}{5}$ OF \$160

↓

$\frac{2}{5} \times 160 = ?$

DIVISION:
- "SPLIT EVENLY", "EQUAL PARTS"

ex. Jerry brings $\frac{7}{8}$ of a liter of coke to a party. How much will each person have if there are 16 friends?

ADDITION:
- "SUM", "ALL TOGETHER"

SUBTRACTION:
- "DIFFERENCE", "LEFT OVER"

COMPARISON: "LEFTOVER"

ex: Darien spent $\frac{2}{3}$ of his money and had \$100 left over. How much money did he begin with?

$\frac{2}{3} = \frac{200}{300}$ used

300 - 200 = \$100 left