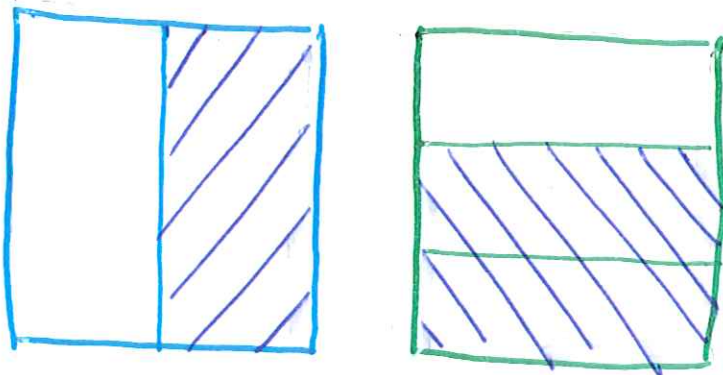# Dr. Taylor's Pedagogical Notes
— DIVIDING FRACTIONS (LESS THAN ONE) —

HOW MANY IS: $\frac{1}{2} \div \frac{2}{3}$

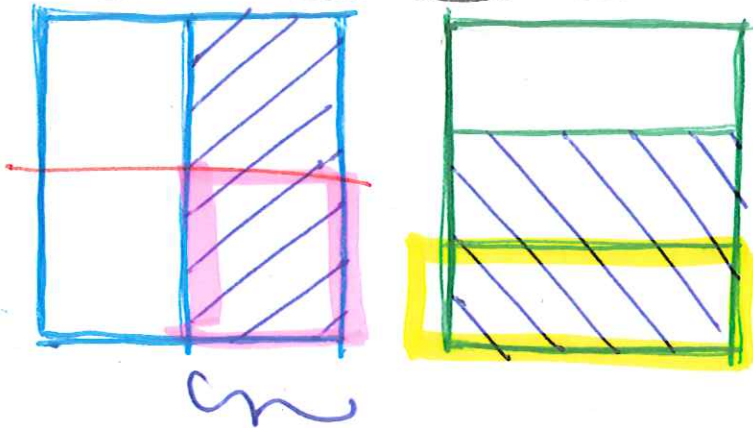① WE SHALL BEGIN BY USING AN "AREA" MODEL. BUT THIS TIME WE SHALL DRAW ONE MODEL FOR EACH FRACTION.

② HERE WE SHALL SHADE ("HATCH") THE RESPECTIVE "NUMERATOR" VALUES ON EACH BOX

③ SIDE LINE THOUGHTS: THE DILEMMA WE HAVE HERE IS WE ARE TRYING TO THINK OF WHAT $\frac{2}{3}$ "GETS"... BUT IT IS REALLY MORE LIKE WHAT "1 DISTRIBUTION" GETS... SO WE MUST THINK CREATIVELY TO HELP US REALIZE THE APPROACH TO ASSESS THE "SECOND" BOX AS A WHOLE AS COMPARED TO THE "MODIFIED" FIRST BOX.

$\frac{1}{2} \div \frac{2}{3}$ CONTINUED...

④ MY ANALYSIS...

HERE I CAN SEE IF I CUT THIS SHADED REGION IN HALF (OR IN THIS CASE) AS WELL AS THE WHOLE BOX... I CAN THEN DIRECTLY COMPARE THESE

UNIT FRACTIONS TO ONE ANOTHER.

HERE I SEE THIS SHADED REGION IS EASY TO CUT IN HALF. THEN I CAN "BUILD" WITH THIS UNIT FRACTION UP TO 1 WHOLE BOX.

THIS UNIT FRACTION IS: $\frac{1}{3}$

THIS UNIT FRACTION IS: $\frac{1}{4}$

⑤ SINCE IT TAKES THREE OF THE "$\frac{1}{3}$" UNIT FRACTIONS TO "ADD UP" TO A WHOLE BOX... THEN IT SHALL TAKE THREE OF THE "$\frac{1}{4}$" UNIT FRACTIONS TO CORRELATE TO THE OTHER "WHOLE" BOX → $3 \times \frac{1}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$

FINAL ANSWER: $\boxed{\frac{3}{4}}$