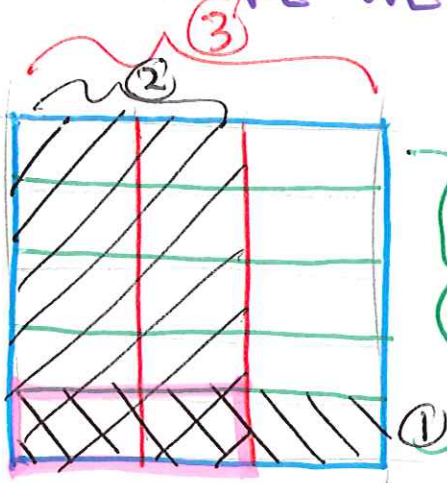


Dr. Taylor's Pedagogical Notes

MULTIPLYING FRACTIONS (LESS THAN ONE) -

HOW MANY IS : $\frac{2}{3} \times \frac{1}{5}$

- ① WE SHALL USE AN "AREA" MODEL TO EVALUATE THIS. IT SHALL BE SIMILAR TO OUR STRATEGY OF "ADDING" FRACTIONS, BUT HERE WE NEED ONLY DRAW ONE BOX.



- ② THIS TIME WE PARTITION THE BOX VERTICALLY WITH THE "DENOMINATOR" OF ONE FRACTION, AND HORIZONTALLY WITH THE "DENOMINATOR" OF THE OTHER FRACTION.

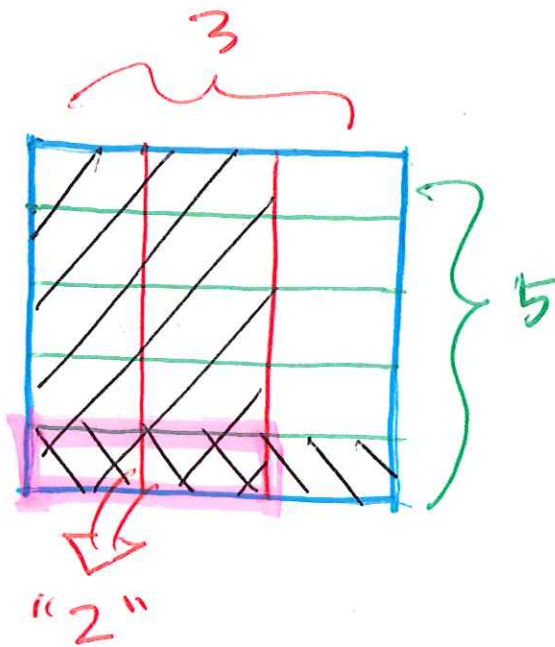
- ③ NOW WE SHADE ("HATCH") THE "NUMERATOR" VALUES FOR EACH CORRESPONDING "DENOMINATOR" VALUE TO REPRESENT BOTH FRACTION IN THE "BIG BOX".

- ④ NOW WE CAN COUNT THE "CROSS HATCHED" BOXES FOR OUR NEW NUMERATOR.

Dr. Taylor's Pedagogical Notes

$$\frac{2}{3} \times \frac{1}{5} \dots$$

- ⑤ TO FIND OUR "DENOMINATOR" VALUE WE SIMPLY COUNT ALL OF THE SQUARES IN THE BIG BOX; OR WE CAN MULTIPLY THE BIG BOX'S DIMENSIONS TO ACHIEVE THE SAME OUTCOME.



NUMERATOR: "2"
DENOMINATOR: (3x5) "15"

NOTE: IF I WERE TO NEED TO SIMPLIFY I WOULD DIVIDE TOP & BOTTOM BY THEIR (GCF) GREATEST COMMON FACTOR TO ARRIVE AT OUR FINAL ANSWER.

- ⑥ BUILD OUR FRACTION, SIMPLIFY AS NECESSARY.

FINAL ANSWER: $\frac{2}{15}$