

Lesson 7 : Dividing Fractions of → x Oct 12, 2022

Recall: Division (improper fraction "split 5 # debt by 2 ppl" → mixed number)  
 "Divide 5 by 2"

ex.  $\frac{5}{2}$   
 $5 \div 2 = 2 \frac{1}{2}$

$$\begin{array}{r} 2 \overline{)5} \\ \underline{-4} \\ 1 \end{array}$$

2 int  
1 R

key words for division:  
 "how many times does 2 go into 5?"  
 "how many 2's are there in 5?"  
 "split/divide"

ex  $\frac{7}{2}$   
 $7 \div 2 = 3 \frac{1}{2}$

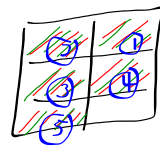
$$\begin{array}{r} \text{den } 2 \overline{)7} \\ \underline{-6} \\ 1 \end{array}$$

3 int  
1 R / num

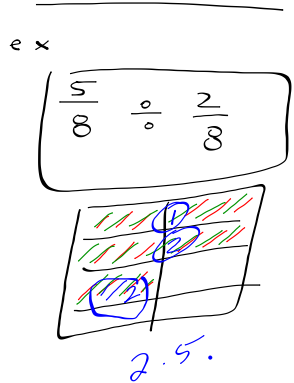
Understanding/Visualizing  
 Division of Fractions:  
 ex  $\left(\frac{5}{6}\right) \div \left(\frac{1}{6}\right)$   
 "dividend" "divisor" "quotient" = answer

$\frac{5}{6} \div \frac{1}{6} = \text{answer}$

"how many times does the divisor go into the dividend?"



how many 1/6's are in 5/6?  
 5.



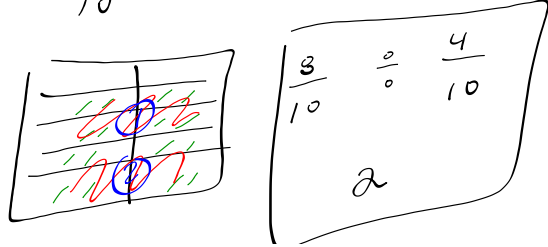
Pg 8.4 #1  $2 \frac{1}{2} \div \frac{1}{2}$



$\frac{5}{2} \div \frac{1}{2} = 5$

Pg 8.5 #2 c)  $\frac{2}{5} \div \frac{8}{10}$

$\frac{3}{10} \div \frac{2}{5} \times 2 = \frac{3}{5} \times 2$



keep / change / flip

How to Divide Fractions:

$$\frac{8}{10} \div \frac{4}{10}$$

$$\frac{8}{10} \times \frac{10}{4}$$

$$\frac{8 \times \cancel{10}}{\cancel{10} \times 4}$$

$$\frac{8}{4}$$

$$2$$

step i: keep 1<sup>st</sup> fraction as is (dividend)

change  $\div$  to  $\times$

flip 2<sup>nd</sup> fraction (divisor)

← "multiplicative inverse/reciprocal"

step ii: multiply (like in lesson 6)

Long way

vs short way

pg 8.9

#4 c)

Divide  $\frac{15}{7}$  by  $\frac{6}{7}$

$$\frac{15}{7} \div \frac{6}{7}$$

$$\frac{15}{7} \times \frac{7}{6}$$

$$\frac{15 \times \cancel{7}}{\cancel{7} \times 6}$$

$$\frac{15}{6} \div \frac{6}{6} = 3$$

$$\frac{5}{2}$$



$$\frac{15}{7} \div \frac{6}{7}$$

$$\frac{15}{7} \times \frac{7}{6}$$

(15 ÷ 3)

$$\frac{5 \times \cancel{7}}{\cancel{7} \times 2}$$

(6 ÷ 3)

$$\frac{5}{2}$$

look for common divisors: 3 (factors)

You do pg 8.9 #4. Then previous word questions.

p 8.13, Ex 8.3

# 3: Divide

$$2\frac{1}{2} \div 3\frac{3}{4}$$

$$\frac{5}{2} \div \frac{15}{4}$$

$$\frac{5}{2} \times \frac{4}{15}$$

$$\frac{\cancel{5} \times \cancel{4}^2}{2 \times \cancel{15}_3}$$

$$\frac{2}{3}$$

• convert to improper fraction.

↙ find common divisors / factors.