

So what have you discovered about dividing fractions?  
Is there a way to divide fractions without modeling?

### Rule for Dividing Fractions

To divide a fraction, the number before the division sign stays the same, the division sign changes to multiplication and the number after the division sign changes to its reciprocal, then multiply the fractions. Or in other words, invert and multiply.

Reciprocal is when you invert the fraction, the numerator moves to the denominator and the denominator moves up to the numerator.

examples  $\frac{5}{4}, \frac{4}{5}$      $\frac{10}{7}, \frac{7}{10}$      $\frac{1}{8}, \frac{8}{1}$      $\frac{6}{11}, \frac{11}{6}$

Examples:

$$\begin{aligned} \text{(a)} \quad & \frac{3}{5} \div \frac{4}{7} \\ & = \frac{3}{5} \times \frac{7}{4} \\ & = \frac{21}{20} \\ & = 1\frac{1}{20} \end{aligned}$$

Always Reduce

$$\begin{aligned} \text{(b)} \quad & \frac{2}{10} \div \frac{8}{15} \\ & = \frac{2}{10} \times \frac{15}{8} \\ & = \frac{9}{2} \times \frac{3}{8} \\ & = \frac{27}{16} \\ & = 1\frac{11}{16} \end{aligned}$$

Rule for Dividing Fractions is:

Flip second fraction and Multiply

a)

$$\frac{7}{8} \div \frac{1}{3}$$

$$\frac{7}{8} \times \frac{3}{1}$$

$$\frac{21}{8}$$

$$2 \frac{5}{8}$$

b)

$$\frac{5}{15} \div \frac{7}{8}$$

$$\times \frac{8}{7}$$

$$\frac{32}{35}$$

c)

$$\frac{1}{8} \div \frac{6}{5}$$

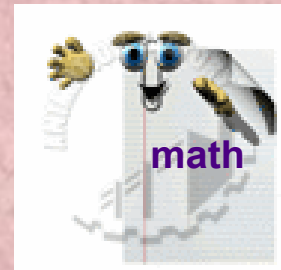
$$\frac{1}{8} \times \frac{5}{6}$$

$$\frac{5}{48}$$

Try These !!

#1

$$\frac{4}{5} \div \frac{7}{8} =$$



#2

$$\frac{1}{8} \div \frac{6}{5}$$



# *Class / Homework*

~~Page 135 - Model #10(a,b,c)~~

Page 139

#8, #9, #10, #11, #12, #14, #15(a,b), #16

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