1/3/12 7.4 Dividing Fractions

Reciprocal: Two numbers whose product is 1.

$$\frac{1}{8} \times \frac{8}{1} = \frac{8}{8} = 1$$

* Every # has a reciprocal except zero!

$$\frac{3}{1} \times \frac{1}{3} = \frac{3}{3} = 1$$

$$\frac{1}{1} = 1$$

To Divide Fractions:

1. Flip the second fraction & change sign! (take the reciprocal of the second fraction)
2. Cross cancel, simplify, reduce
3. Multiply numerator & denominator across
4. Simplify!

$\frac{2}{3} \div \frac{3}{4}$ ← when I flip this fraction, it changes the process from ÷ to X.

① $\frac{2}{3} \times \frac{4}{3}$

② $\frac{2}{3} \times \frac{4}{3}$

③ $\frac{8}{9}$

④ ✓

P. 335

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

① $\frac{1}{4} \times \frac{3}{1} = \frac{3}{4}$

Ex 3: $\frac{3}{4} \div 6$ (dividend, divisor)

① $\frac{3}{4} \div \frac{6}{1}$

② $\frac{\cancel{3}^{1}}{4} \times \frac{1}{\cancel{6}_{2}} = \frac{1}{8}$ pound per person

Ex 3: (b) $6 \div \frac{3}{4}$

① $\frac{6}{1} \div \frac{3}{4}$

② $\frac{2\cancel{4}}{1} \times \frac{4}{\cancel{3}_{1}} = \frac{8}{1} = 8$ people

P. 335 #s 5-8

(5) $\frac{5}{8} \div \frac{4}{3} = \frac{5}{8} \times \frac{3}{4} = \frac{15}{32}$

(6) $\frac{7}{10} \div \frac{1}{2} = \frac{7}{\cancel{10}_{5}} \times \frac{\cancel{2}^{1}}{1} = \frac{7}{5} = 1\frac{2}{5}$

(7) $\frac{9}{10} \div 3 = \frac{9}{10} \div \frac{3}{1} = \frac{\overset{3}{9}}{10} \times \frac{1}{\cancel{3}_{1}} = \frac{3}{10}$

(8) $12 \div \frac{2}{3} = \frac{12}{1} \div \frac{2}{3} = \frac{\overset{6}{12}}{1} \times \frac{3}{\cancel{2}_{1}} = \frac{18}{1} = 18$

In Class:

p. 336 #s 5-8

p. 337 #s 26-39

HW: WS 7.4

p. 93-94

#s 1-29 ODD