

Fraction Division 1

You will remember in the study of decimal division that you could not divide by a decimal fraction; you first had to move the decimal to make the divisor a whole number.

You shouldn't be surprised, then, to learn that you cannot divide by a common fraction either without changing the problem in some way. Here is the way it is stated:

To divide by a fraction, invert the divisor and multiply.

"Invert" means to turn upside down, so that a fractional divisor such as $\frac{6}{8}$ becomes $\frac{8}{6}$

So a common fraction division problem such as $\frac{3}{4} \div \frac{6}{8}$

Must be written as a multiplication problem by

"inverting" the divisor, and changing the sign $\frac{3}{4} \times \frac{8}{6}$ to multiply.

Solving: $\frac{3}{4} \div \frac{6}{8} = \frac{3}{4} \times \frac{8}{6}$ and with cancelling and simplifying becomes $\frac{\cancel{1}^1}{\cancel{1}^1} \times \frac{\cancel{8}^2}{\cancel{6}_2} = \frac{2}{2} = 1$

Examine Another:

Solving: $5 \div \frac{15}{18} = \frac{\cancel{1}^1}{\cancel{1}^1} \times \frac{\cancel{18}^3}{\cancel{15}_3} = \frac{3}{1} = 3$

[Note: This sheet is meant as a review only, and *not* intended to teach you how to divide fractions]

Reduce all answers to simplest terms

1.

$$9 \div \frac{6}{7} =$$

2.

$$5 \div \frac{10}{12} =$$

3.

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

4.

$$12 \div \frac{4}{9} =$$

5.

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

6.

$$14 \div \frac{2}{3} =$$

7.

$$9 \div \frac{27}{32} =$$

8.

$$10 \div \frac{5}{8} =$$

9.

$$15 \div \frac{3}{4} =$$

10.

$$6 \div \frac{3}{7} =$$

11.

$$4 \div \frac{8}{9} =$$

12.

$$6 \div \frac{3}{4} =$$

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	