

Warm-Up

Evaluate the following expressions:

$$1) \left(-\frac{2}{7}\right) \left(-\frac{1}{3}\right)$$

$$\frac{2}{21}$$

$$2) \left(-3\frac{3}{4}\right) \left(-2\frac{1}{3}\right)$$

$$\left(-\frac{15}{4}\right) \left(-\frac{7}{3}\right)$$

$$\frac{105}{12} = 8\frac{9}{12}$$

$$= 8\frac{3}{4}$$

Determine the sign of each quotient

$$a) \left(-\frac{3}{4}\right) \div \left(-\frac{7}{8}\right)$$

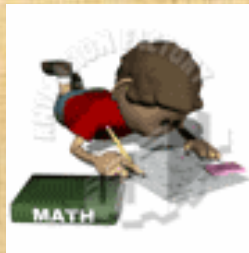
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$$b) \left(-\frac{2}{5}\right) \div \left(\frac{6}{7}\right)$$

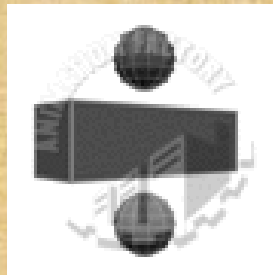
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$$c) 7.8 \div 3.6$$

+



Dividing Fractions



Reciprocal

- Every **non-zero** fraction has a reciprocal.
- Fractions with a denominator of "0" are undefined. $\left(\frac{6}{0}\right)$
- * To find the **reciprocal** of a fraction, you simply **flip** the fraction !!

$$\frac{4}{5}$$

$$\frac{5}{4}$$



Express each division question as a multiplication question !!!!

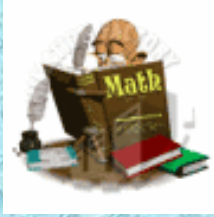
Terminology

Dividend

Quotient

Divisor

$$10 \div 5 = 2$$



Dividing Fractions

Multiply the **dividend** by the **reciprocal** of the **divisor** !!

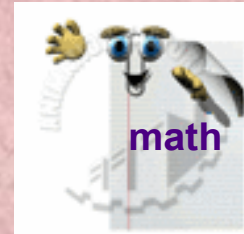
$$\frac{4}{5} \div \frac{1}{3} = \frac{4}{5} \times \frac{3}{1} = \frac{12}{5} = 2\frac{2}{5}$$

Dividend *Divisor*

$$\frac{4}{5} \times \frac{3}{1} =$$

<http://www.youtube.com/watch?v=80WArGwAjt8&feature=related>

Try These !!



#1

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

$$\frac{4}{5} \times \frac{8}{7} = \frac{32}{35}$$

#2

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

$$\frac{1}{8} \times \frac{5}{-6} = \frac{-5}{48}$$

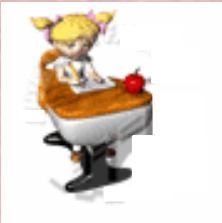


#3

$$2\frac{1}{4} \div \frac{5}{1} =$$

$$\frac{9}{4} \div \frac{5}{1}$$

$$\frac{9}{4} \times \frac{1}{5} = \frac{9}{20}$$



Determine the missing number in the division statement.

Missing Dividend

$$\text{Dividend} \div \text{Divisor} = \text{Quotient}$$

$$(\quad) \div 4 = 3$$

Think:

Division is the inverse of **Multiplication**.

$$4 \times 3 = 12$$

↑ missing dividend

~~*~~ To Solve for Missing Dividend
take **Divisor** X **Quotient**

$$(\quad) = 3 \times 4$$



Now with Rational #s

You Try

A) $(\quad) \div \left(\frac{5}{11}\right) = \frac{3}{7}$

$$\left(\frac{5}{11}\right)\left(\frac{3}{7}\right) = \frac{15}{77}$$

B) $\frac{52.92}{\quad} \div 12.6 = 4.2$

$$12.6 \times 4.2$$

Determine the missing number in the division statement.

Missing Divisor

$$15 \div (-3) = -5$$

Think:

Quotient is negative thus the BLANK must be what sign? _____

* To solve for missing Divisor
take **Dividend** \div **Quotient**

$$15 \div (\quad) = -5$$



You Try

$$1) \quad -2.5 \div \underline{-0.5} = 5$$

$$-2.5 \div 5$$

$$2) \quad \left(\frac{-12}{21}\right) \div \left(\frac{-96}{105}\right) = \frac{5}{8}$$

$$\frac{-12}{21} \div \frac{5}{8}$$

$$\frac{-12}{21} \times \frac{8}{5} = \frac{-96}{105}$$

Class / Homework

$$\frac{3}{4} \div \frac{7}{8}$$

$$\frac{3}{4} \div \frac{15}{8}$$

$$\frac{3}{4} \times \frac{8}{15} = \frac{24}{60} = \frac{2}{5}$$

12

17 a, b, c, d

18 a

Practice Problems Page 135-136

Write out the questions and then show all work to get to the answer.

