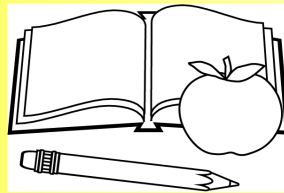


Warm-Up



September 22

A. $\frac{2}{-5} + -3\frac{1}{6}$

add (with arrow pointing to the 1 in the mixed number)

$\times 6$ $\frac{-2}{5} + \frac{-19}{6} \times 5$

$\frac{-12}{30} + \frac{-95}{30}$

$\frac{-107}{30}$ $\left(-3\frac{17}{30}\right)$

B. $\left(\frac{7}{-8}\right)\left(-2\frac{1}{4}\right)$

$-\frac{7}{8} \times -\frac{9}{4}$

$\frac{63}{32}$

$1\frac{31}{32}$



Homework Any Questions???

12. Determine each product.

a) $\left(\frac{5}{4}\right)\left(-\frac{16}{5}\right)$ **-4** b) $\left(-\frac{2}{3}\right)\left(-\frac{5}{6}\right)$ **5/9**

c) $\left(-2\frac{8}{9}\right)\left(5\frac{1}{8}\right)$ d) $\left(-4\frac{2}{5}\right)\left(-\frac{5}{3}\right)$

-14 29/36

7 1/3

14. A courier company has a bank account balance of \$45 567.87. The company must repaint all its 25 delivery trucks at an average cost of \$3457.25 per truck.
- a) Write a multiplication statement with rational numbers to determine the cost of painting the trucks.
- b) What is the bank account balance after the bill for painting has been paid? Explain your result.

$$\begin{array}{r} 3457.25 \\ 3457.25 \end{array}$$

a) 25×3457.25

$$86\,431.25$$

Have - Need

b) $45\,567.87 - 86\,431.25$

$$-40\,863.38$$

Section 3.5 Dividing Rational Numbers

The Rules for Positive and Negatives still apply when dividing rational numbers



What will the sign be?

$$\left(\frac{8}{9}\right) \div \left(\frac{-1}{3}\right)$$

negative

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

positive

What does reciprocal mean???



Two numbers whose product are 1

Rational #	Reciprocal	- flip your fraction
A. $\frac{4}{1}$	$\frac{1}{4}$	$\frac{4}{4} = 1$ $\frac{4}{1} \times \frac{1}{4} = \frac{4}{4} = 1$
B. $\frac{3}{2}$	$\frac{2}{3}$	$\frac{6}{6} = 1$
C) $-\frac{1}{3}$	$-\frac{3}{1}$	
D) $-\frac{8}{1}$	$-\frac{1}{8}$	
E) $-2\frac{1}{6}$ $\frac{-13}{6}$	$-\frac{6}{13}$	

What is the reciprocal of.. → flip



a) $-\frac{2}{7}$

$-\frac{7}{2}$

b) $\frac{9}{-8}$

$-\frac{8}{9}$

c) $2\frac{4}{5}$ → add
x

$\frac{14}{5}$
 $\frac{5}{14}$

d) $-3\frac{2}{3}$

$-\frac{11}{3}$
 $-\frac{3}{11}$

To Divide Fractions:

1. Multiply by the reciprocal of the second fraction
2. Multiply the numerators of the fractions
3. Multiply the denominators of the fractions
4. Express in simplest form.

$$\begin{array}{l} -\frac{2}{3} \div \frac{1}{4} \\ \rightarrow \\ -\frac{2}{3} \times \frac{4}{1} \\ \rightarrow \\ -\frac{8}{3} \end{array} \quad \textcircled{-2\frac{2}{3}}$$

20/4 or 1 divided by 1/2

Evaluate. Express your number in lowest terms.

$$\frac{3}{5} \div \frac{1}{3}$$

↓

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

←

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



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



$$\frac{9}{4} \div \frac{5}{3}$$

↓ ↓ flip

$$\frac{9}{4} \times \frac{3}{5}$$

$$\frac{27}{20} = 1\frac{7}{20}$$

$$-2\frac{2}{9} \div -1\frac{2}{3}$$

$$-\frac{20}{9} \div -\frac{5}{3} \leftarrow \text{flip}$$

$$-\frac{20}{9} \times \frac{3}{5}$$

$$\frac{60}{40} = 1\frac{15}{40}$$

$$\left(1\frac{1}{3} \right)$$

$$-\frac{6}{5} \div 3\frac{1}{2}$$

$$-\frac{6}{5} \div \frac{7}{2}$$

$$-\frac{6}{5} \times \frac{2}{7}$$

$$\frac{-12}{35}$$



Homework

Quotient = answer
when divide.

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