Fractions:
Multiply and Divide

Fractions!

Multiply:

To multiply fractions, we just multiply striaght across. Multiply Numerators (tops) and Denominators (bottoms). Change to improper fractions. Remember to reduce your answers.

Examples:

$\frac{1}{8} \times \frac{8}{9} = \frac{8}{72} = \frac{1}{9}$

1 → 8
8 → 9

$= \frac{1}{9}$

$1\frac{2}{5} \times \frac{2}{3} = \frac{7}{5} \cdot \frac{2}{3} = \frac{14}{15}$

$+ \; 1\frac{2}{5} = \frac{7}{5}$

Fractions!

Multiply:

a.) $\frac{7}{11} \times \frac{2}{11} = \frac{14}{121}$

b.) $\frac{10}{11} \times \frac{8}{9} = \frac{80}{99}$

c.) $\frac{8}{15} \times \frac{2}{3} = \frac{16}{45}$

d.) $\frac{2}{5} \times \frac{3}{5} = \frac{6}{25}$

Fractions!

Multiply:

e.) $\frac{2}{3} \times \frac{1}{4} =$

f.) $\frac{1}{5} \times \frac{3}{4} =$

g.) $\frac{1}{2} \times \frac{7}{11} =$

$8 \cdot 9 = 72$

$72 + 5 = 77$

h.) $9\frac{5}{8} \times \frac{5}{1} =$

$\frac{77}{8} \cdot \frac{5}{1} = \boxed{\frac{385}{8}}$

$$\begin{array}{r} {}^{3}77 \\ \times 5 \\ \hline 385 \end{array}$$

$$8\overline{)385}$$

-32

65

Fractions!

Multiply:

i.) $\frac{1}{4} \times \frac{7}{8} =$

j.) $\frac{11}{13} \times \frac{1}{9} =$

Fractions!

Divide:

To divide fractions, we must do KFC. Then just follow rules for multiplication. (Change to improper fractions.)

KFC stands for:

K- Keep 1st fraction as is.

F - Flip the 2nd fraction (reciprocal).

C - Change the divide to a multiply.

Examples:

$\frac{8}{6} \div \frac{2}{1} = \frac{8}{6} \cdot \frac{1}{2} = \frac{4}{6} = \frac{2}{3}$

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

$\frac{6}{5} \div \frac{2}{5} = \frac{6}{5} \cdot \frac{5}{2} = \frac{3}{1} = 3$

$\frac{2}{3} \cdot \frac{1}{2} = \frac{2}{3}$

Fractions!

Divide:

a.) $\frac{6}{11} \div \frac{3}{5} =$

$= \frac{2\cancel{6}}{11} \cdot \frac{5}{\cancel{3}1} = \boxed{\frac{10}{11}}$

b.) $\frac{1}{12} \div \frac{7}{9} =$

$\frac{1}{4\cancel{12}} \cdot \frac{\cancel{9}3}{7} = \boxed{\frac{3}{28}}$

c.) $\frac{1}{11} \div \frac{8}{9} =$

$\frac{1}{11} \cdot \frac{9}{8} = \boxed{\frac{9}{88}}$

d.) $\frac{1}{7} \div \frac{5}{6} =$

Fractions!

Divide:

e.) $\frac{2}{3} \div \frac{1}{2} =$

f.) $\frac{2}{9} \div \frac{3}{5} =$

g.) $\frac{1}{2} \div \frac{7}{11} =$

h.) $\frac{7}{11} \div \frac{3}{5} =$

Fractions!

Divide:

i.) $\frac{5}{7} \div \frac{1}{12} =$

j.) $\frac{1}{2} \div \frac{3}{5} =$

k.) $\frac{1}{4} \div 1\frac{1}{3} =$

l.) $4\frac{3}{10} \div 2 =$

Fractions!

Divide:

m.) $9\frac{7}{9} \div 2\frac{1}{5} =$

n.) $\frac{1}{3} \div \frac{2}{5} =$

o.) $\frac{1}{2} \div \frac{3}{10} =$

Fractions!

Mixed:

Multiply or Divide the given Fractions. Remember to reduce your answer.

a.) $12\frac{2}{5} \times 7\frac{3}{8} =$

$31 \cdot \frac{62}{5} \cdot \frac{59}{8}$ (4)

$= \frac{1829}{20}$

31
×59
279
1550
1829

b.) $1\frac{4}{5} \div \frac{3}{4} =$

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

$= \frac{3}{5} \cdot \frac{4}{3}$ (9, 3)

$= \frac{12}{5}$

Fractions!

Divide:

c.) $9\frac{7}{10} \div 10\frac{1}{8} =$

d.) $11 \times 11\frac{1}{4} =$

e.) $\frac{6}{13} \times \frac{1}{10} =$

f.) $11 \div 12\frac{7}{9} =$

Homework:

Multiply and Divide Fractions Worksheet

Remember: Quiz next time!