Name_____

**Pre-Algebra Notes**

**Week 2: Lessons 5.4 and 5.5**

**Multiplying Fractions (5.4)**

$\frac{3}{5} \cdot \frac{4}{7} =$ $\frac{multiply\ numerators}{multiply\ denominators}$

**Examples**

1. Multiplying Fractions

$\frac{7}{10} \cdot (\frac{-4}{21})$

2. Multiplying a Mixed Number and Integer

$3\frac{1}{4} \cdot 15$

Extra Practice

3. Multiplying Mixed Numbers

$-\ 2\frac{3}{4} \cdot 3\frac{1}{5}$

Extra Practice

4. Simplifying Expressions

*Simplify the expression*

a. $\frac{m}{3} \cdot (\frac{-12}{5})$

b. $\frac{n^2}{10} \cdot \frac{5n^3}{9}$

Extra Practice

**Dividing Fractions (5.5)**

Reciprocals- two non-zero numbers whose product is _____

| Number | Reciprocal | Justification |
|---|---|---|
| 5 | $\frac{1}{5}$ | $\frac{5}{1} \cdot \frac{1}{5} = 1$ |
| $\frac{2}{7}$ | $\frac{7}{2}$ | $\frac{2}{7} \cdot \frac{7}{2} = 1$ |
| $\frac{-5}{8}$ | | |
| 0.1 | | |

Using Reciprocals to Divide - K.F.C. Method

$\frac{2}{9} \div \frac{3}{7}$

**K**- Keep the first fraction

**F**- Flip the second (reciprocal)

**C-** Change the sign to multiplication

**Examples**

1. Dividing a Fraction by a Fraction

$\frac{-2}{5} \div \frac{4}{7}$

2. Dividing a Mixed Number by a Mixed Number

$4\frac{1}{6} \div (-1\frac{2}{3})$

Extra Practice

3. Dividing a Whole Number by Mixed Number

You want to join strips of wood that are 15 inches long and $1\frac{5}{8}$ inches wide to make a cutting board that is at least 12 inches wide. How many strips are needed?