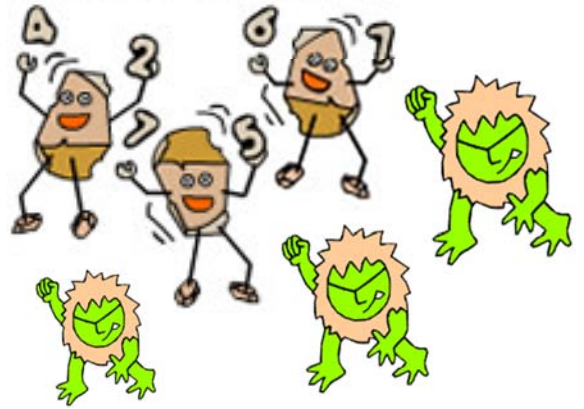


## 2.1 (pg. 56) Multiplying Fractions w/ Cancellation

i am The  
Ruler

MATH ROCKS



Step 1

Multiply Numerators.



Too Easy!

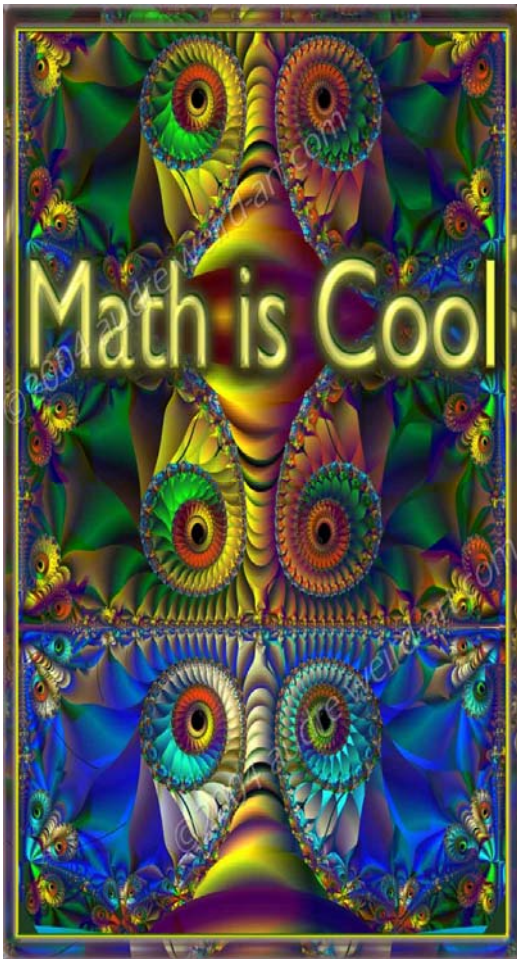
$$\frac{6}{8} \times \frac{3}{5} \begin{matrix} \longrightarrow \\ \longrightarrow \end{matrix} \frac{18}{40} \div \frac{2}{2} = \frac{9}{20}$$

Step 2

Multiply Denominators.

Step 3

Simplify!!!



Ex.

$$\frac{5}{28} \times 4 =$$

**Special Step:** If multiplying a whole number, turn it into a fraction by placing it over 1.

$$\frac{5}{28} \times \frac{4}{1} = \frac{20}{28} \div \frac{4}{4} = \frac{5}{7}$$

$$\frac{4}{5} \times 6 = \frac{4}{5} \times \frac{6}{1} = \frac{24}{5}$$

If your answer ends up improper you must **SIMPLIFY!**

$$\frac{24}{5} \rightarrow 5 \overline{) \begin{array}{r} 24 \\ 20 \\ \hline 4 \end{array}} \rightarrow 4 \frac{4}{5}$$

← Remainder  
← Divisor



# Cancellation



Sweet Rides!  
Lots of math  
involved in



$$\frac{32}{50} \times \frac{20}{56} =$$

**HERE IS A  
GNARLY  
EXAMPLE!**



# STEP 1

Find any **numerator** **AND** any **denominator** that have a common factor.

You can **NEVER** cancel out 2 numerators or 2 denominators!!!

$$\frac{32}{50} \times \frac{20}{56}$$

Does 32 or 20 share a common factor with 50 or 56?



## STEP 2

Divide out the common factor by crossing out your numbers.

$$\text{Ex. } \begin{array}{c} 4 \\ \cancel{8} 32 \\ 10 \\ \cancel{5} 0 \\ 5 \end{array} \times \begin{array}{c} 2 \\ \cancel{10} 20 \\ 8 \\ \cancel{5} 6 \\ 7 \end{array} \Rightarrow \begin{array}{c} 4 \\ 5 \end{array} \times \begin{array}{c} 2 \\ 7 \end{array} = \frac{8}{35}$$

## STEP 3

Multiply across for your answer.

Try these now on your dry erase board!

$$\frac{6}{15} \times \frac{8}{12} = \quad \frac{5}{28} \times \frac{7}{25} =$$