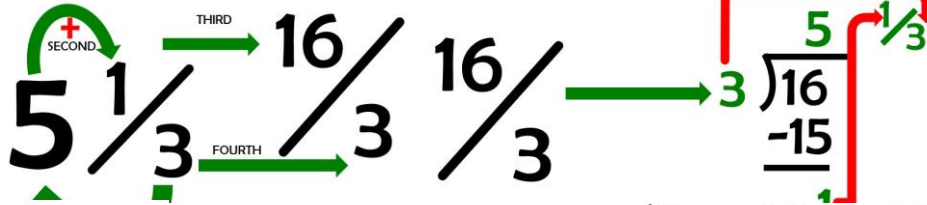


# Free, printable fractions posters

Nest  
**N**umerator

Mixed Number  $\rightarrow$  Improper Fraction    Improper Fraction  $\rightarrow$  Mixed Number



**Simplest Form = Smallest Fraction**

Find the biggest number that both the top and bottom can be divided by:

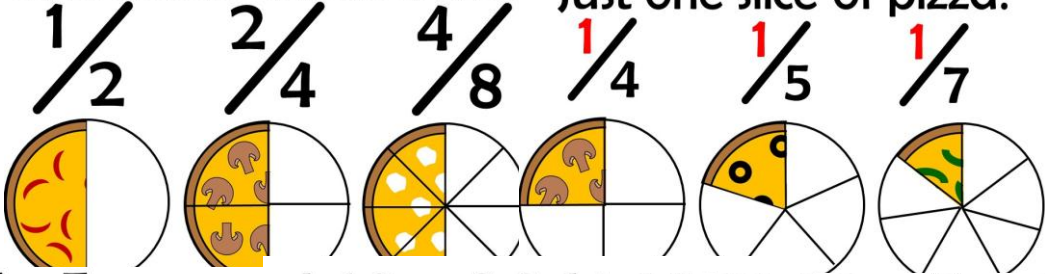
10 & 12 can both be divided by 2.  
4 & 8 can both be divided by 4.

$$\frac{10}{12} \div \frac{2}{2} = \frac{5}{6}$$

$$\frac{4}{8} \div \frac{4}{4} = \frac{1}{2}$$

**Equivalent Fractions**

Equal the same amount of pizza



**Unit Fractions**

Just one slice of pizza!

**Like Fractions**

**To Make Like Fractions**

Find the smallest multiple shared by all denominators.

3, 4 and 2 can all go into 12.

$$\frac{2}{3} \times \frac{4}{4} = \frac{8}{12}$$

$$\frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$$

$$\frac{1}{2} \times \frac{6}{6} = \frac{6}{12}$$

**Adding & Subtr Multiplying Fractions**

Only add & subtract like    Multiply the tops & the bottoms.

The bottom stays the

$$\frac{5}{7} + \frac{4}{7} = \frac{9}{7}$$

$$\frac{3}{4} \times \frac{4}{5} = \frac{12}{20}$$

**Dividing Fractions**

Flip the divisor upside down & multiply!

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

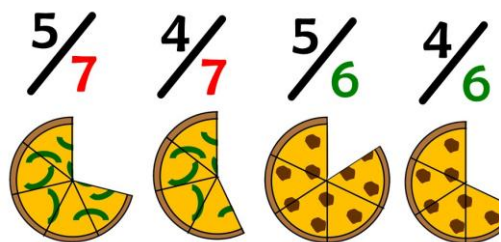
$$\frac{5}{7} \times \frac{3}{8} = \frac{15}{56}$$

$$\frac{4}{5} \div \frac{3}{8} \rightarrow$$

$$\frac{4}{5} \times \frac{8}{3} = \frac{32}{15} \text{ or } 2\frac{2}{15}$$

**Der**  
Down

Come from the same pizza





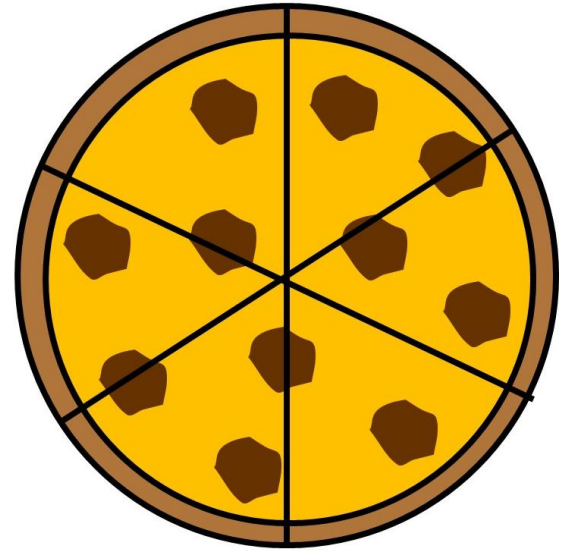
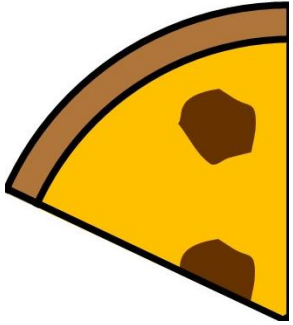
**N**est

**N**umerator

 **D**enominator  
**D**own

Nom, Nom, Nom!

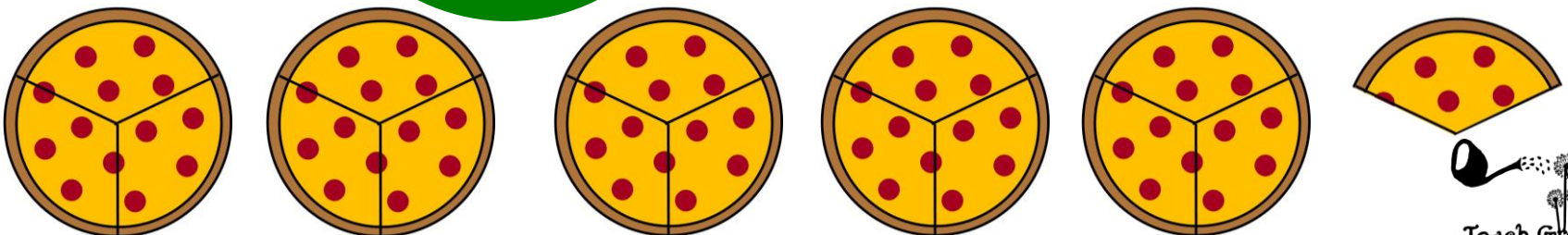
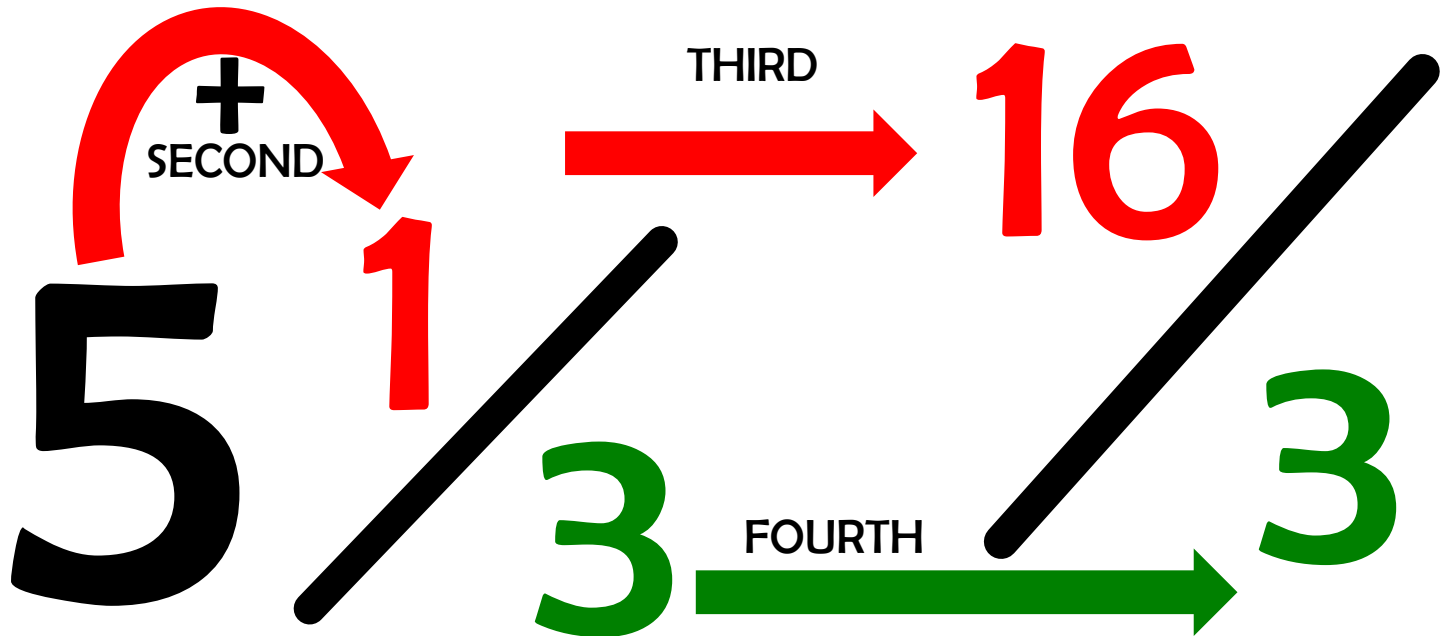
**N**umerator



 **D**enominator  
Deep **D**ish

To teach the terms Numerator and Denominator, have students make a whole pizza (see Pizza Fractions pages) and say, “I have # slices of Deep-Dish Pizza. I’m going to eat # slice(s). Nom, nom, nom!” as they pretend to eat it. Remind them that Numerator starts with an N because it’s the part you Nom, Nom, Nom. Denominator starts with a D because it’s the Deep-Dish Pan you’re taking slices out of.

# Mixed Number $\rightarrow$ Improper Fraction



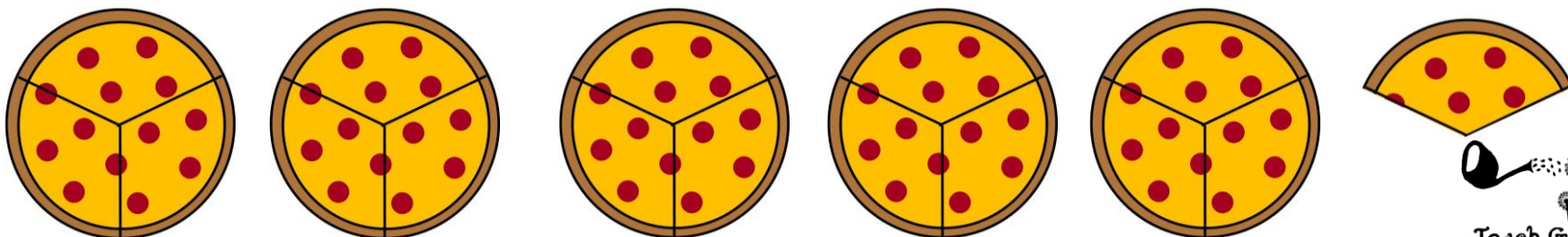
# Improper Fraction $\rightarrow$ Mixed Number

$$\frac{16}{3}$$



$$\begin{array}{r} 5 \\ 3 \overline{) 16} \\ \underline{-15} \\ 1 \end{array}$$

The diagram shows the conversion of the improper fraction  $\frac{16}{3}$  to the mixed number  $5\frac{1}{3}$ . A green arrow points from the fraction to the long division. The long division shows 3 dividing 16 to get 5 with a remainder of 1. A red arrow points from the remainder 1 to the numerator of the fractional part  $\frac{1}{3}$ . A green arrow points from the divisor 3 to the denominator of the fractional part  $\frac{1}{3}$ .



# Simplest Form = Smallest Fraction #

Find the biggest number that both the top and bottom can be divided by:



10 & 12 can both be divided by 2.

$$\frac{10}{12} \div 2 = \frac{5}{6}$$

4 & 8 can both be divided by 4.

$$\frac{4}{8} \div 4 = \frac{1}{2}$$

# To find the Simplest Form, find each number's Greatest Common Factor

(The biggest number that can evenly divide into both of them.)

<b>18</b> /	<b>1, 2, 3, 6, 9, 18</b>
<b>24</b> /	<b>1, 2, 3, 4, 6, 8, 12, 24</b>

6 is the largest number that can evenly divide both 18 & 24

$$\begin{array}{r} 18 \\ \hline 24 \end{array} \div 6 = \begin{array}{r} 3 \\ \hline 4 \end{array}$$

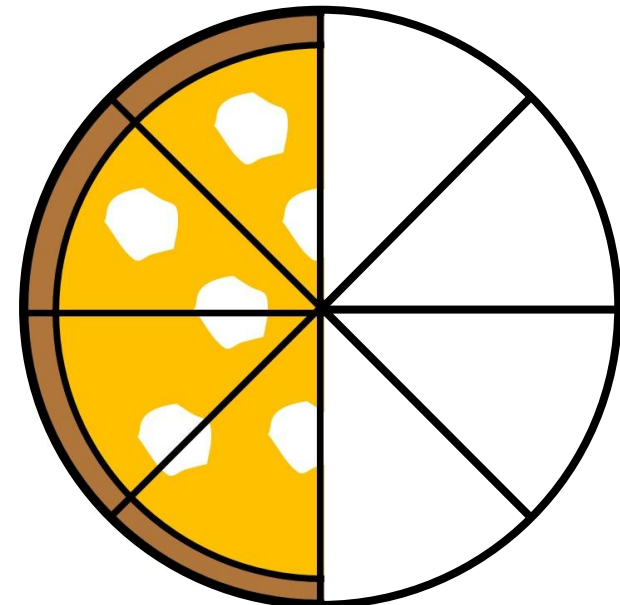
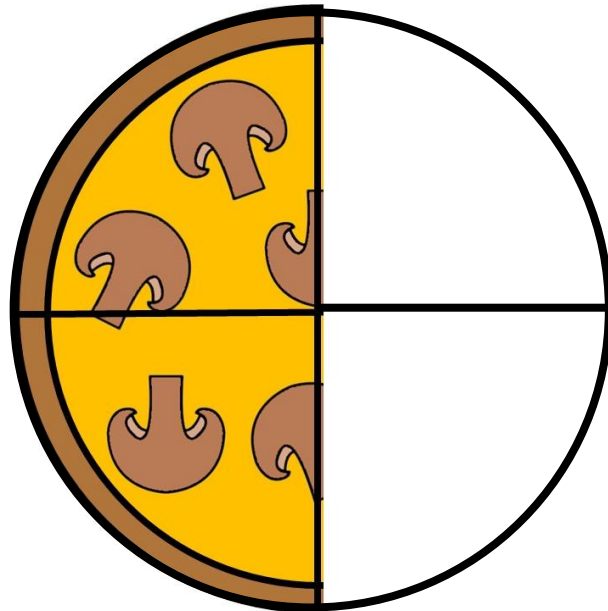
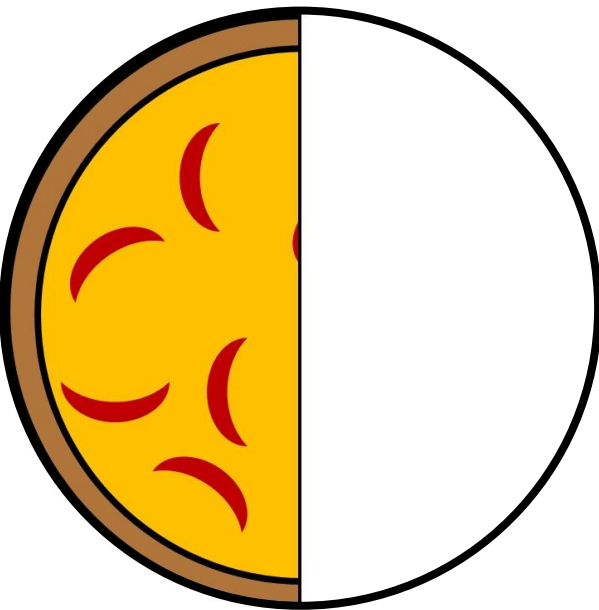
# Equivalent Fractions

Equal the same amount of pizza!

$$\frac{1}{2}$$

$$\frac{2}{4}$$

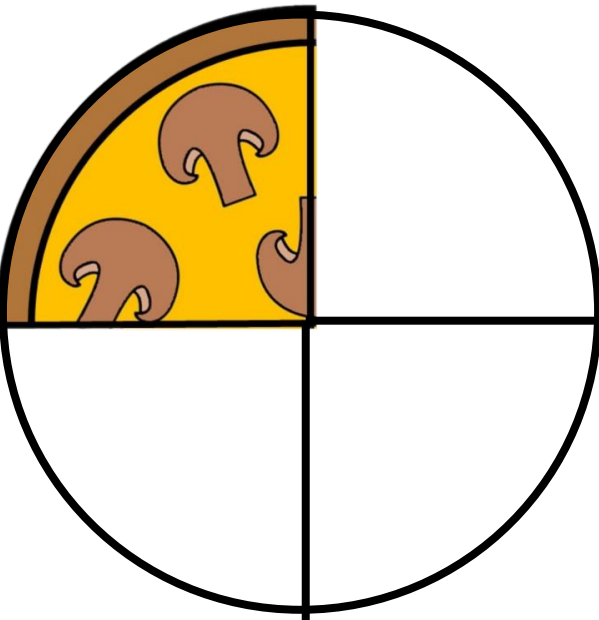
$$\frac{4}{8}$$



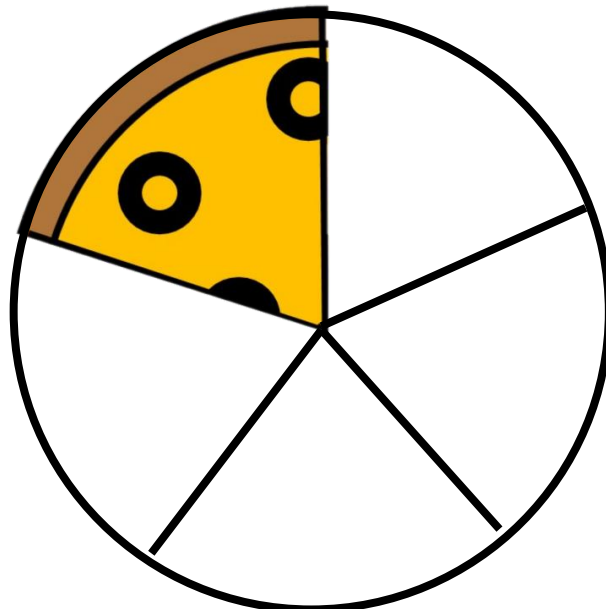
# Unit Fractions

Just one slice of pizza!

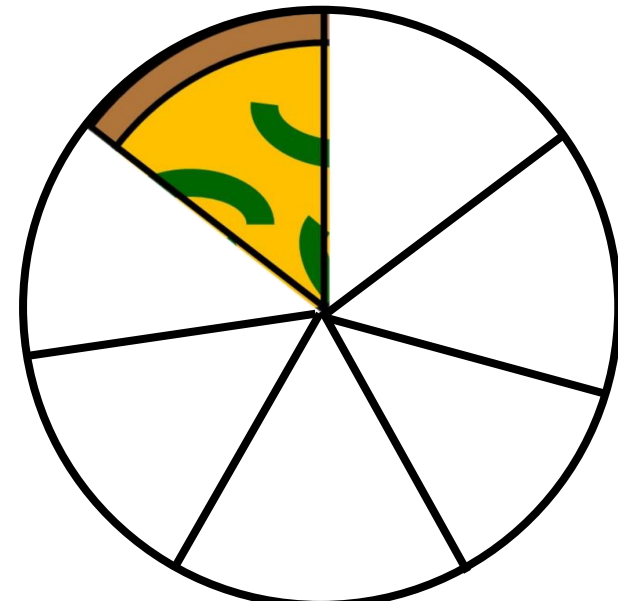
$$\frac{1}{4}$$



$$\frac{1}{5}$$



$$\frac{1}{7}$$



# Like Fractions

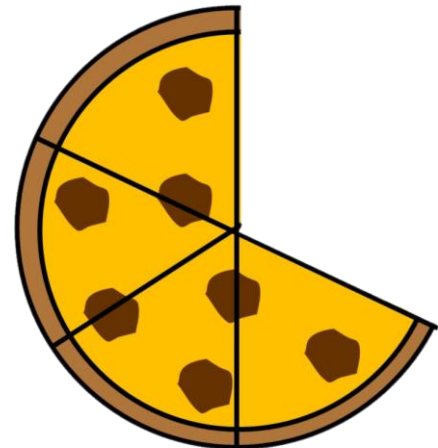
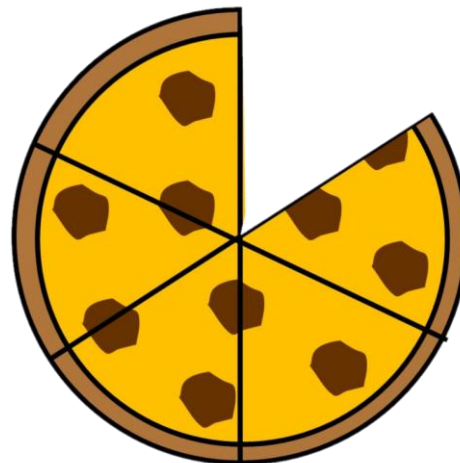
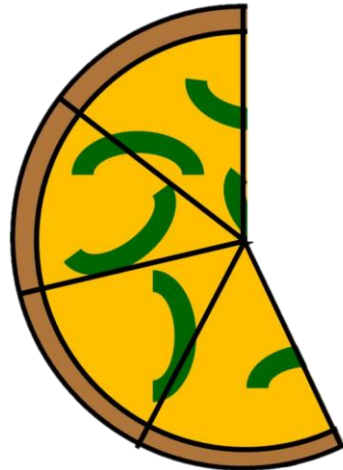
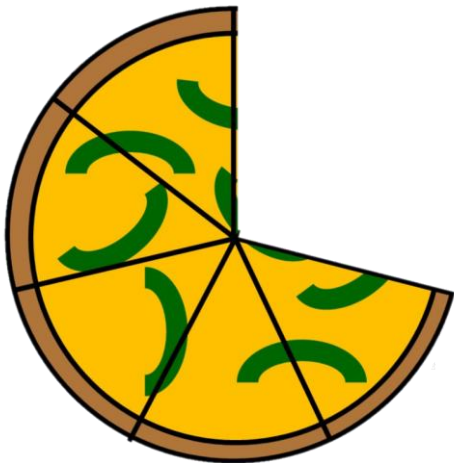
Come from the same pizza!

$$\frac{5}{7}$$

$$\frac{4}{7}$$

$$\frac{5}{6}$$

$$\frac{4}{6}$$



# To Make Like Fractions

Find the smallest multiple shared by all denominators.

3, 4 and 2 can all go into 12.

$$\frac{2}{3}$$

X

4

=

$$\frac{8}{12}$$

$$\frac{3}{4}$$

X

3

=

$$\frac{9}{12}$$

$$\frac{1}{2}$$

X

6

=

$$\frac{6}{12}$$

# Adding & Subtracting

Only add & subtract like fractions.

The bottom stays the same!

$$\frac{5}{7} + \frac{4}{7} = \frac{9}{7} \text{ or } 1\frac{2}{7}$$

$$\frac{5}{7} - \frac{4}{7} = \frac{1}{7}$$

# Multiplying Fractions

Multiply the tops & the bottoms.

$$\frac{3}{4} \times \frac{4}{5} = \frac{12}{20}$$

$$\frac{5}{7} \times \frac{3}{8} = \frac{15}{56}$$

# Dividing Fractions

Flip the divisor upside down & multiply!

$$\frac{4}{5} \div \frac{3}{8} \quad \longrightarrow$$
$$\frac{4}{5} \times \frac{8}{3} = \frac{32}{15} \text{ or } 2\frac{2}{15}$$

Dividend  
Divisor

Divisor ) Dividend

Dividend ÷ Divisor

If multiplying a # by a fraction, the quotient will be less than the #.

$$\frac{5}{7} \times \frac{2}{3} < \frac{5}{7}$$
$$7 \times \frac{2}{3} < 7$$

If multiplying a # by an improper fraction, the quotient will be greater than the #.

$$\frac{5}{7} \times \frac{4}{3} > \frac{5}{7}$$
$$7 \times \frac{4}{3} > 7$$

If multiplying a # by a fraction with the same numerator and denominator, the quotient will be the same as the #.

$$\frac{5}{7} \times \frac{4}{4} = \frac{5}{7}$$
$$7 \times \frac{3}{3} = 7$$