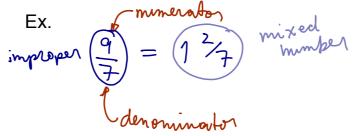
## **Fractions Review**

Equivalent fractions: we can obtain an equivalent fraction by				
multiply	or		both the	
numerator AND the denominator by the same				
value.	7.	$u^{-} \pm 5$	5	
Ex. $\frac{15}{21 \times 2}$	30 07	$\frac{15}{21} \div 3 =$	2 r	
	42	21 - 5	f	

Mixed numbers, improper fractions and decimals: a fraction is improper when its <u>numerator</u> is greater than its <u>denominator</u>. Its value is thus greater than 1 and can be written as a mixed number.

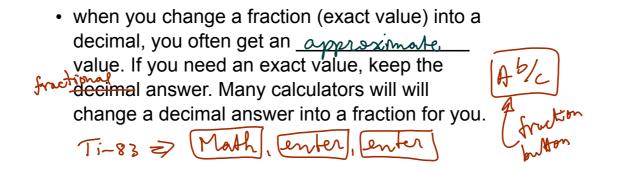


• changing a mixed number to an improper fraction

$$en / 3\frac{5}{6} = \frac{3^{nb}}{1^{*}} \frac{5}{6} = \frac{(3 \times 6) + 5}{6} = \frac{23}{6}$$

$$4\frac{9}{5} = \frac{29}{5}$$

• changing an improper fraction to a mixed number



Adding and Subtractin	וַם: we need a <u>רסע</u>	nmon
Ex. $\frac{3^{\times 5}}{3^{\times 5}} = \frac{3^{\times 4}}{5}$	3 + /7	345 - 13/7
$=\frac{15}{20}+\frac{8}{20}$	= 3×3 1982 8×3 12×2	$= \frac{16}{5\times1} \frac{10}{7} \times \frac{10}{5}$
$= \frac{23}{28}$	$=\frac{9}{27}+\frac{38}{29}$	$=\frac{112}{35}-\frac{50}{35}$
20	$=\frac{47}{24}$	$= \frac{62}{33}$

Mutiplying: we **do not** need a <u>common</u> <u>denominato</u>.

Ex.  $\frac{3}{5} \times \frac{1}{2}$   $= \frac{3 \times 1}{5 \times 2} = \frac{3}{10}$   $\frac{1}{4} \times \frac{1}{3} = \frac{1}{4} \times \frac{4}{3}$   $= \frac{1}{4} \times \frac{1}{3}$   $= \frac{1}{4} \times \frac{1}{3}$  $= \frac{1}{4} \times \frac{1}{3}$ 

· simplifying first is always easier

Ex.  $\frac{1}{4} \times \frac{4}{3} = \frac{1 \times 4}{4 \times 3} = \frac{4 \times 1}{4 \times 3} = \frac{4}{4} \frac{1}{3} = \frac{1}{3}$   $\frac{2\pi}{4} \frac{2\pi^{3}}{2\pi} \times \frac{8}{7} = \frac{3\times}{2\pi} = \frac{3}{2}$  $\frac{2\pi}{4} \frac{2\pi^{3}}{2\pi} \times \frac{8}{7} = \frac{2\pi}{2\pi} = \frac{2}{44}$  Dividing: instead of dividing, we can always multiply by the <u>reciprocal</u>.

• Recall:  
> the reciprocal of 
$$\frac{2}{3}$$
 is  $\frac{3}{2}$   
> the reciprocal of  $\frac{4}{1}$  is  $\frac{1}{4}$   
> the reciprocal of  $\frac{-5}{-5}$  is  $\frac{7}{-5} = -\frac{1}{5} = -\frac{1}{5} = -0.2$   
> the reciprocal of  $\frac{-5}{-7}$  is  $\frac{-7}{-5} = \frac{7}{5}$   
Ex.  $\frac{2}{-5} = -\frac{2}{3} \div \frac{5}{7}$   
 $\frac{9x}{5} = \frac{1}{3} \div 5$   
 $\frac{1}{5} = -\frac{1}{3} \div 5$ 

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

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