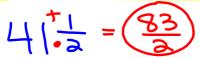
Name Mrs. Ashley Date Math 6

Warm-up:

a) An astronaut who weighs 250 pounds on Earth would weigh $41\frac{1}{2}$ pounds on the moon. What is the astronaut's moon weight written as an improper fraction?



- b) What operations are used to change a mixed number to an improper fraction?
- a) Multiplication and division
- b) Division and subtraction
- c) Division and addition
- d) Multiplication and addition

M.A.D

denominator



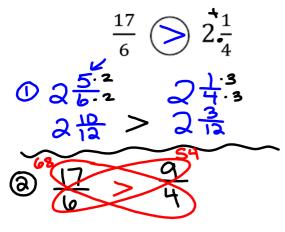
ET'S INVESTIGATE: How do we order and/or compare fractions?

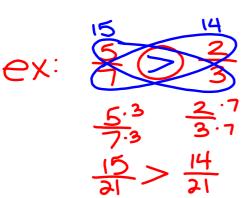
KEY CONCEPT 1: COMPARING FRACTIONS

Least Common Denominator (LCD) - is the least common multiple (LCM) of the

denominator of a set of fractions.

Compare the fractions below using < (less than) or > (greater than).





What are some ways you can compare the fractions?

- 1 make both mixed numbers

 - Over/under 1/2 draw a picture
- 2) make both improper
 - -LCD
- Cross multiply (bowtie' (cross products) butterfly make both decimals

KEY CONCEPT 2: ORDERING FRACTIONS

Order from LEAST to GREATEST

$$(\frac{13}{4})$$
 $2\frac{3}{8}$, $5\frac{1}{2}$, 3 $3\frac{1}{4}$, $3\frac{3}{8}$, $5\frac{1}{2}$, 3

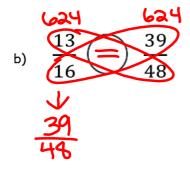
Ways to order fractions:

- Change ALL fractions to either improper fractions or mixed numbers.
- Find the LCD (ladder method)
- · OR... list the multiples

Now You Try!

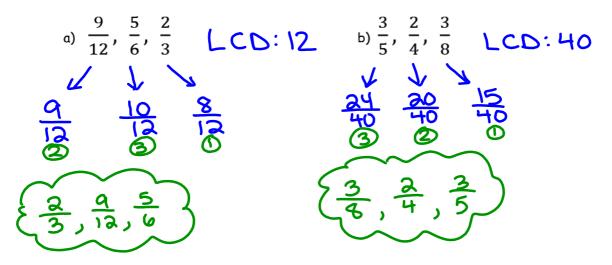
- 1) Compare the fractions below using < (less than) or > (greater than), or = (equal to). (HINT: CROSS MULTIPLY)
 - a) $\frac{21}{4}$ \bigcirc $3\frac{2}{3}$

c) $\frac{5}{12}$ $\frac{13}{22}$



d) $17\frac{3}{7}$ $\Rightarrow \frac{86}{5}$ $\Rightarrow \frac{586}{5}$ $\Rightarrow \frac{36}{35}$ $\Rightarrow \frac{35}{7.5}$ $\Rightarrow \frac{17\frac{15}{7}}{35} > 17\frac{7}{35}$

2) Order the fractions below from LEAST to GREATEST. Remember to find the LCD!



c)
$$1\frac{9}{20}$$
, $1\frac{1}{2}$, $1\frac{1}{3}$, $1\frac{1}{5}$
 $1\frac{27}{60}$ $1\frac{30}{60}$ $1\frac{20}{60}$ $1\frac{12}{60}$
 $1\frac{1}{5}$, $1\frac{1}{3}$, $1\frac{9}{20}$, $1\frac{1}{3}$

3) A group of friends is collecting food for a food drive. Each person who donates at least $4\frac{1}{4}$ pounds of food receives a free movie ticket. The weight of each person's donation is shown in the table below.

	Quinn	Ted	Andrew	Grace	
Weight (lbs.)	$4\frac{3}{10}$	$5\frac{1}{2}$	$\frac{15}{4}$	$4\frac{3}{8}$	
			4334		

a) Order the weights of the food from greatest to least.

b) Which of the friends will receive a free movie ticket?

c) What if? Would the person with the smallest donation win a movie ticket if he or she had collected $\frac{1}{2}$ pound more of food? Explain!

Write the fraction that represents each color. Be ready to defend your answer.

