

6th Grade  
Nov 30, 2020

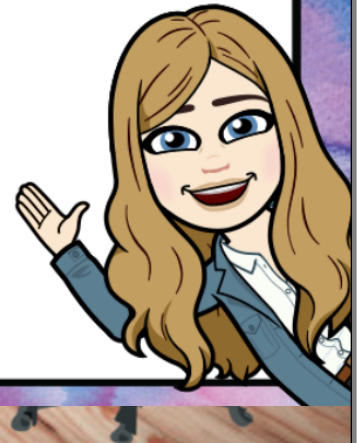
Please open your binder to put in a new table of contents.

Today we will:  
-complete notes  
-do some examples  
-begin HW

HOMEWORK:

Page 11 from Text

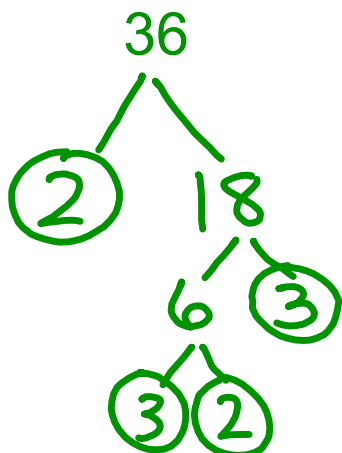
NO ALEKS TONIGHT



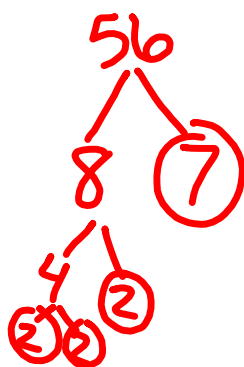
## Now let's define GCF:

Definition	Facts/Characteristics
<p>The highest number that divides exactly into two or more numbers.</p>	<p>You can make a list or use factor trees to find GCF.</p>
<p>Greatest Common Factor (GCF)</p>	
Examples	Non-examples
<p>The GCF of 12 and 18 is 6 The GCF of 10, 15, and 20 is 5.</p>	<p>The GCF of 12 and 6 is NOT <math>12 \div 6 = 2</math>.</p>

## Factor Trees:



$$2 \times 2 \times 3 \times 3$$



$$2 \times 2 \times 2 \times 7$$

$$36: 2 \times 2 \times 3 \times 3$$

$$56: 2 \times 2 \times 2 \times 7$$

$$\text{GCF} : 2 \times 2 = 4$$

Now let's define LCM:

Definition	Facts/Characteristics
<p>The least non-zero number that is a multiple of two or more whole numbers</p>	<p>You can use a number line, make a list, or use prime factorization to find LCM.</p>
<p>Examples</p> <p>The LCM of 2 and 6 is 6.</p> <p>The LCM of 4, 5, and 10 is 20.</p>	<p>Non-examples</p> <p>The LCM of 6 and 12 is NOT <math>6 \times 12 = 72</math>. This gives us a multiple, but not the <u>least</u>.</p>

Least Common Multiple (LCM)

Find LCM of 4, 6, and 8

(1) Use a list.

4: 4, 8, 12, 16, 20, **24**, 28  
 6: 6, 12, 18, **24**, 30, 36  
 8: 8, 16, **24**, 32

$$\text{LCM} = 24$$


---

(2) Use prime factorization.

LCM of 9 and 21.



$$9: 3 \times 3$$

$$21: \cancel{3} \times 7$$

$$\text{LCM} = 3 \times 3 \times 7 = \mathbf{63}$$

Lets work through the WS together:

$$\begin{array}{l} \textcircled{1} \quad 2 \cdot 2, 4, 6, 8 \\ \quad \quad 4 \cdot 4, 8 \end{array}$$

LCM: 4

---

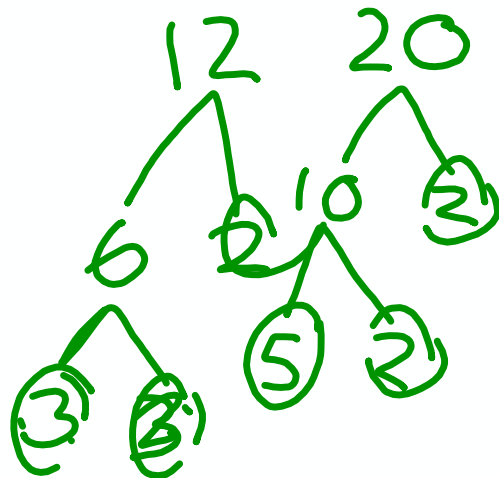

$$\begin{array}{l} \textcircled{2} \text{ LCM of 8 and 12:} \\ \quad 8 \cdot 8, 16, \textcircled{24} \text{ LCM}=24 \\ \quad 12 \cdot 12, \textcircled{24} \end{array}$$

---


$$\textcircled{3} \text{ LCM of 6 and 9:}$$

$$\begin{array}{l} 6 \cdot 12, 18 \\ 9 \cdot 18 \end{array}$$

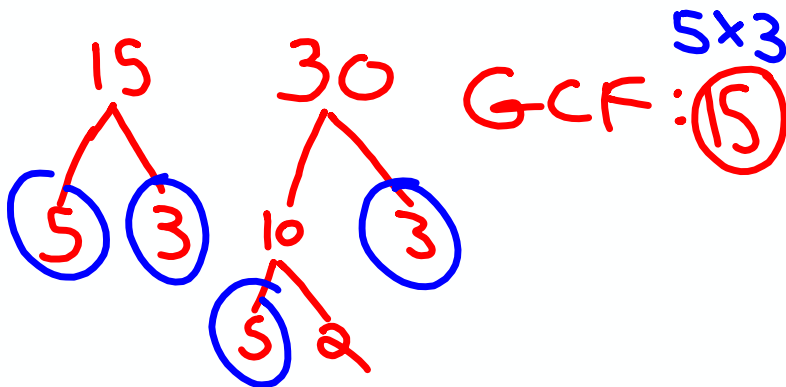
⑥ GCF of 12 and 20:



$$\begin{array}{l} 3 \times 2 \times 2 \\ 2 \times 2 \times 5 \end{array}$$

$$2 \times 2 = 4 \text{!}$$

⑦ GCF of 15 and 30:



$$5 \times 3$$

GCF: (5)

15: 1, 3, 5, 15  
 30: 1, 2, 3, 5, 6, 10, 15, 30







Name \_\_\_\_\_ My Homework \_\_\_\_\_

## Independent Practice

Go online for Step-by-Step Solutions



Find the greatest common factor of each set of numbers. (Example 2)

1. 8, 14 \_\_\_\_\_

Show your work.

2. 21, 24, 27 \_\_\_\_\_

3. 21, 35, 49 \_\_\_\_\_

4. 12, 18, 26 \_\_\_\_\_

Find the least common multiple of each set of numbers. (Examples 3 and 4)

5. 5 and 6 \_\_\_\_\_

6. 6 and 9 \_\_\_\_\_

7. 6, 12, and 15 \_\_\_\_\_

8. 3, 9, and 15 \_\_\_\_\_

9. A gardener has 27 pansies and 36 daisies. He plants an equal number of each type of flower in each row. What is the greatest possible number of pansies in each row? (Example 1)

---



---

10. Fourteen boys and 21 girls will be equally divided into groups. Find the greatest number of groups that can be created if no one is left out. (Example 1)

---



---

