

Learning Objective: Students will be able to use Euclid's Ladder to find the Least Common Multiple of two numbers.

Warm Up

Divisible by 9 and 3?

336	173	404	826	672	729	263	979
781	796	391	878	555	303	625	906
191	387	406	237	431	890	961	755

Divisible by 6?

796	661	452	147	573	994	525	621
821	376	540	203	459	475	768	923
737	879	464	819	437	615	220	978

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Warm Up Answers

Divisible by 9 and 3?

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Homework Answers

1.5 Record and Practice Journal

Find the GCF of the numbers using lists of factors.

1. 9, 15

3

2. 11, 19

1

3. 8, 28

4

4. 60, 70

10

5. 40, 56

8

6. 35, 72

1

Find the GCF of the numbers using prime factorizations.

7. 4, 10

2

8. 5, 11

1

9. 6, 8

2

10. 14, 42

14

11. 45, 63

9

12. 60, 90

30

13. You are making identical gift bags using 24 candles and 36 bottles of lotion. What is the greatest number of gift bags you can make with no items left over?

12 gift bags

Handwritten student work showing prime factorizations and Euclid's Ladder for finding the GCF of 14 and 42.

Prime factorizations:

- 14 = 2 × 7
- 42 = 2 × 3 × 7

Euclid's Ladder for 14 and 42:

14	42
2	21
7	3

The GCF is 14.

Essential Question:

How can you find the Least Common Multiple
of two numbers?

LCM

Lesson Objective:

Students will be able to:

use Euclid's Ladder to find the Least Common Multiple of two numbers.

Self-Evaluation Scale

Score	Description
4	I can teach other students how to use Euclid's Ladder to find the Least Common Multiple of two numbers.
3	I can use Euclid's Ladder to find the Least Common Multiple of two numbers.
2	I recognize, but still need help to use Euclid's Ladder to find the Least Common Multiple of two numbers.
1	I do not know how to use Euclid's Ladder to find the Least Common Multiple of two numbers.

Learning Objective: Students will be able to use Euclid's Ladder to find the Least Common Multiple of two numbers.



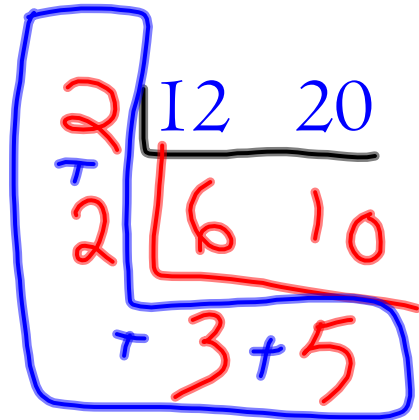
Euclid of Alexandria

lived from about 325 BC to about 265 BC

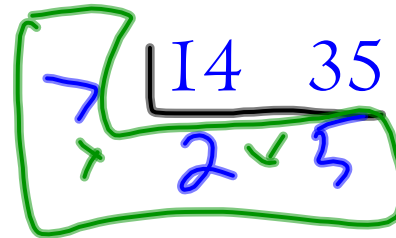
Euclid was a Greek mathematician best known for his treatise on geometry: *The Elements*. This influenced the development of Western mathematics for more than 2000 years.

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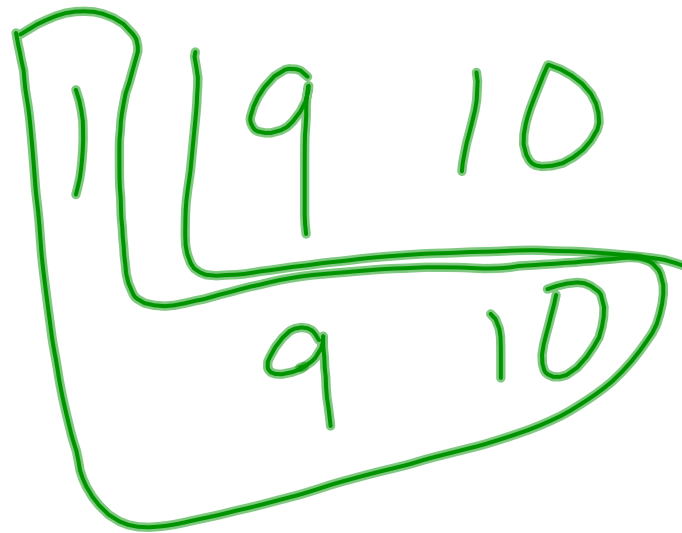
Euclid's Ladder



$$\text{LCM} = 60$$



$$\text{LCM} = 70$$



11 12

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On Your Own

60

$$\begin{array}{r} 2 \overline{) 12 \quad 30} \\ 3 \overline{) 16 \quad 15} \\ 2 \overline{) 2 \quad 5} \end{array}$$

$$\begin{array}{r} 2 \overline{) 32 \quad 54} \\ 16 \quad 27 \end{array}$$

$$\begin{array}{r} \overline{) 24 \quad 108} \end{array}$$

$$\begin{array}{r} \overline{) 51 \quad 85} \end{array}$$

$$\begin{array}{r} 2 \overline{) 14 \quad 84} \\ 7 \overline{) 7 \quad 42} \\ 1 \overline{) 1 \quad 6} \end{array}$$

$$\begin{array}{r} 3 \overline{) 39 \quad 66} \\ 13 \quad 22 \end{array}$$

GCF = less than
or equal to smaller #

12 36

LCM = greater than
or equal to larger #

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Lesson 1.6

October 9, 2014

Essential Question:

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Learning Objective: Students will be able to use Euclid's Ladder to find greatest common factors of two numbers.

Homework

In your Big Ideas Record and Practice Journal
page 26.