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

Warm Up

$$\begin{array}{r} 70 \\ \times\ 11 \\ \hline \end{array}\qquad \begin{array}{r} 35 \\ \times\ 52 \\ \hline \end{array}\qquad \begin{array}{r} 41 \\ \times\ 41 \\ \hline \end{array}$$

$$\begin{array}{r} 74 \\ \times\ 26 \\ \hline \end{array}\qquad \begin{array}{r} 42 \\ \times\ 93 \\ \hline \end{array}\qquad \begin{array}{r} 54 \\ \times\ 42 \\ \hline \end{array}$$

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Warm Up Answers

$$
\begin{array}{r}
70 \\
\times\, 11 \\
\hline
70 \\
700 \\
\hline
770
\end{array}
\qquad
\begin{array}{r}
35 \\
\times\, 52 \\
\hline
70 \\
1{,}750 \\
\hline
1{,}820
\end{array}
\qquad
\begin{array}{r}
41 \\
\times\, 41 \\
\hline
41 \\
1{,}640 \\
\hline
1{,}681
\end{array}
$$

$$
\begin{array}{r}
74 \\
\times\, 26 \\
\hline
444 \\
1{,}480 \\
\hline
1{,}924
\end{array}
\qquad
\begin{array}{r}
42 \\
\times\, 93 \\
\hline
126 \\
3{,}780 \\
\hline
3{,}906
\end{array}
\qquad
\begin{array}{r}
54 \\
\times\, 42 \\
\hline
108 \\
2{,}160 \\
\hline
2{,}268
\end{array}
$$

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Homework Answers

1.4 Record and Practice Journal

List the factor pairs of the number.

1. 6

$1 \cdot 6, 2 \cdot 3$

2. 7

$1 \cdot 7$

3. 10

$1 \cdot 10, 2 \cdot 5$

4. 16

$1 \cdot 16, 2 \cdot 8,$
$4 \cdot 4$

5. 35

$1 \cdot 35, 5 \cdot 7$

6. 55

$1 \cdot 55, 5 \cdot 11$

Write the prime factorization of the number.

7. 9

3^2

8. 24

$2^3 \cdot 3$

9. 40

$2^3 \cdot 5$

10. 44

$2^2 \cdot 11$

11. 50

$2 \cdot 5^2$

12. 65

$5 \cdot 13$

13. A fitness instructor arranges 30 people into rows. Each row has the same number of people.

a. Can the instructor arrange the people into rows of 6?

yes

b. Can the instructor arrange the people into rows of 9?

no

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

September 22, 2015

Lesson 1.5

Essential Question:

How can you find the greatest common factor of two numbers?

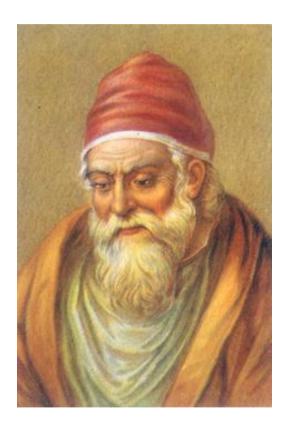Lesson 1.5   September 22, 2015

Lesson Objective:

Students will be able to:

use Euclid's Ladder to find greatest common factors of two numbers.

Self-Evaluation Scale

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

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

Euclid

also known as Euclid of Alexandria, was a Greek mathematician, often referred to as the "Father of Geometry".

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

Euclid's Ladder

$$\lfloor 12 \quad 20$$

$$\lfloor 14 \quad 35$$

On Your Own

$\lfloor\underline{12\quad 30}$ $\lfloor\underline{32\quad 54}$ $\lfloor\underline{24\quad 108}$

$\lfloor\underline{51\quad 85}$ $\lfloor\underline{14\quad 84}$ $\lfloor\underline{39\quad 66}$

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

Assignment

Complete problems 13, 15, 16, 23, 25, 26, 31, & 33 on pages 34 & 35 in your Big Ideas Text Book.

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Lesson 1.5

September 22, 2015

Essential Question:

How can you find the greatest common factor
of two numbers?

Lesson 1.5   September 22, 2015

Lesson Objective:

Students will be able to:

use Euclid's Ladder to find greatest common factors of two numbers.

Self-Evaluation Scale

Score	Description
4	I can teach other students how to use Euclid's Ladder to find greatest common factors of two numbers.
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Homework

In your Big Ideas Record and Practice Journal page 22.