| Name_ | | | |
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| | Mrs. | Doolan /Math6 | |

5-3 Least Common Multiples

Objective: You've learned about divisibility and about the numbers that divide a given number. Now's let's learn to find the least common multiple of two numbers.

♦ Multiple: the product of two whole numbers.

Example:

Multiples of 6: 6 12 18 <u>24</u> 30 36 42 48 Multiples of 8: 8 16 <u>24</u> 32 40 48

Numbers which appear in both lists are common multiples.

♦ Least Common Multiple: the *smallest* common multiple of the numbers.

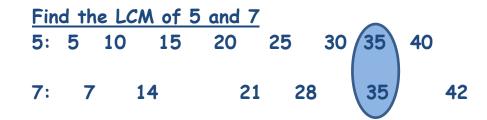


**To find LCMs, make either a vertical or horizontal list and line up multiples in order. The Least Common Multiple is the smallest number that appears on both (or all three) lists.

Vertical Method:

| Find 1 | the LCM | <u>of 3</u> | and | <u>11</u> |
|--------|-----------|-------------|-----------|-----------|
| | 3 | | 11 | |
| | 3 | | | |
| | 6 | | | |
| | 9 | | | |
| | | | 11 | |
| | 12 | | | |
| | 15 | | | |
| | 18 | | | |
| | 21 | | | |
| | | | 22 | |
| | 24 | | | |
| | 27 | | | |
| | 30 | | | |
| | | | | |
| (| <u>33</u> | | <u>33</u> | |
| · | | | | |

Horizontal Method:





1. 12, 15

2. 16, 6

3. 5, 7, 10

EXTENSION: For any pair of numbers, is the least common multiple always greater than both of the numbers? Explain.