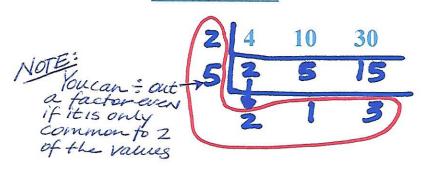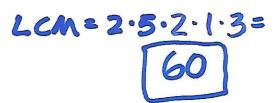Math6

Finding the LCM of 3 (or more) Values:

There are three methods to solve these kinds of problems. You may use any of these methods to solve:

EXAMPLE #1:   Find the LCM of 4, 10, and 30.
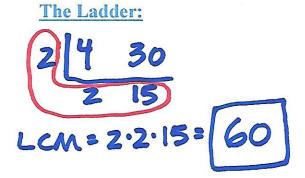
1. The Ladder:

NOTE:
You can ÷ out
a factor even
if it is only
common to 2
of the values

$$2 | 4 \quad 10 \quad 30$$
$$5 | 2 \quad 5 \quad 15$$
$$\quad | 2 \quad 1 \quad 3$$

$$LCM = 2 \cdot 5 \cdot 2 \cdot 1 \cdot 3 = \boxed{60}$$

2. Create Multiple Strings:

4:	4	8	12	16	<u>20</u>	24	28	32	36	<u>40</u>	44	48	52	56	60
10:			10		<u>20</u>			30		<u>40</u>			50		60
30:								<u>30</u>							60

3. Reasoning & Hybrid:

I know every multiple of 30 is also a multiple of 10 so I will solve for the LCM of 4 and 30 only:

The Ladder:

$$2 | 4 \quad 30$$
$$\quad | 2 \quad 15$$

$$LCM = 2 \cdot 2 \cdot 15 = \boxed{60}$$

Multiple Strings:

4: 4 8 12 16 20 ... $\boxed{60}$
30: 30 $\boxed{60}$

You Got This:

Find the LCM of:

1. 4,   6, and   10

2. 6,   8,   and   12