LCM (5-4)

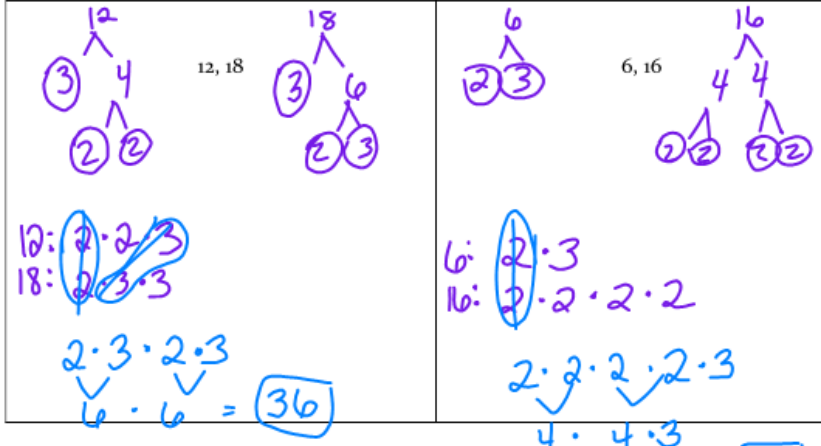
least common multiple	Decode LCM
Definition the smallest multiple that two or more #'s share	Example 4 6 4: 4, 8, 12, 16, 20, 24 . . . 6: 6, 12, 18, 24, 30 . . .

Find the LCM of 8 and 12.

the ***old*** way	the ***new*** way
1) List all of the multiples. 2) Circle the LCM. 8: 8, 16, 24, 32, 40, 48 . . . 12: 12, 24, 36, 48 . . . 24	1) List the prime factorization 2) Stack 'em 3) Circle what they have in common 4) Multiple what they have in common (once each) 5) Recycle the rest of the numbers 8 → 2 · 4 → 2 · 2 · 2 12 → 3 · 4 → 3 · 2 · 2 8: 2 · 2 · 2 12: 3 · 2 · 2 2 · 2 · 2 · 3 4 · 6 24

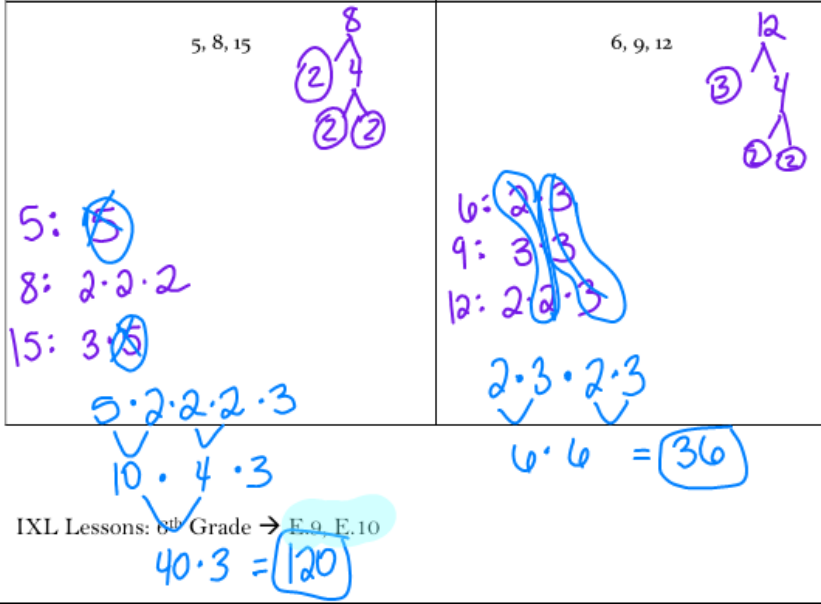
Example 1: Find the LCM of the two numbers.

I Do	You Do
12, 18	6, 16



Example 2: Find the LCM of the three numbers.

I Do	You Do
5, 8, 15	6, 9, 12



IXL Lessons: 8th Grade → E.9, E.10

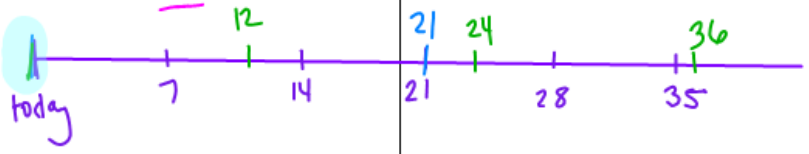
Example 3: Solve.

I Do	You Do
Hot dogs are sold in packs of 8. Hot dog buns are sold in packs of 6. How many of each pack do you need to buy to have the same amount of hot dogs and buns.	Your brother gets his hair cut every 7 days, you get your hair cut every 21 days, your mom gets her hair cut every 12 days. If you all get your hair cut today, in how many days will you all get it cut on the same day again?

LCM 6 & 8

6: 6, 12, 18, 24, 30, 36...
8: 8, 16, 24

24 ÷ 8 = 3 packs hot dogs
24 ÷ 6 = 4 packs buns



LCM 7, 21, 12

7
21
12
7
3 7
2 6
2 3

7: 7
21: 3 · 7
12: 2 · 2 · 3

3 · 7 · 2 · 2
21 · 4 = 84 days

IXL Lessons: 6th Grade → E.9, E.10