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LI: I am learning to identify multiples, primes and factors.

- 1) Use common factors to find equivalent fractions for the following fractions: $36/45$ and $48/60$
- 2) Explain how you would find the common factors of 48 and 75
- 3) Explain whether this is true or false: " $12 \times 25 = 300$, so 300 is the common multiple of 12 and 25."
- 4)

How does the highest common factor help find the lowest common multiple?

Find the highest common factor and lowest common multiple of these numbers, and complete the table. What is the relationship?

Number 1	Number 2	Product	Highest Common Factor	Lowest Common Multiple
7	9			
4	5			
6	8			
8	12			

- 5) Now knowing the relationship of the numbers from question 4, create your own three examples like in the table.
- 6) How many of the three-digit numbers that can be made from all of the digits 1, 3 and 5 (used only once each) are prime?
- 7) The integer 113 is prime, and its reverse, 311, is also prime. How many two-digit primes are there between 10 and 99 which have the same property?
- 8) Which of the following numbers is the product of exactly 3 distinct prime numbers? 45, 60, 91, 105, 330

Charlie wants to buy a new house but he doesn't like house numbers that are divisible by 3 or by 5.

If all the houses numbered between 100 and 150 inclusive are for sale, how many houses can he choose from?

