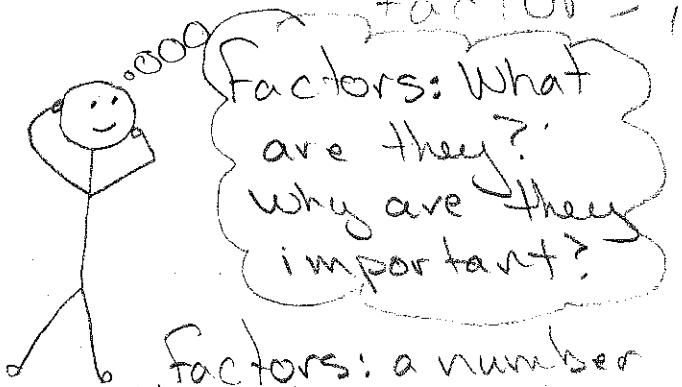
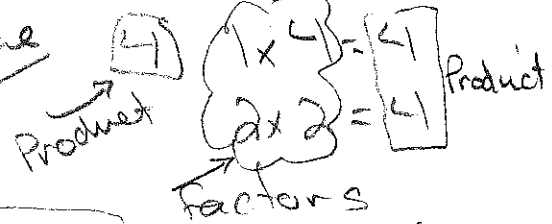
Factors, Multiples, Patterns and such 4th



factors: a number multiplied by another number to find a PRODUCT

Looks Like



4: 1, 2, 4 ← list of factors

Strategies

:factor Tree*

12: 1, 2, 3, 4, 6, 12

1x12
2x6
3x4

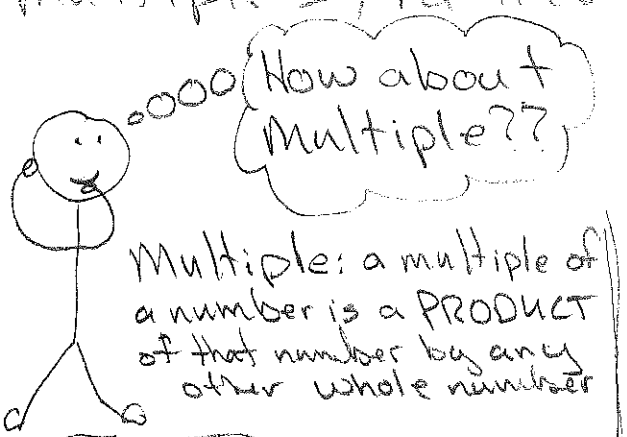
write factors only once and least to greatest

Rainbow

16: 1, 2, 4, 8, 16

factor Table

Product 36	Factors
1x36	1, 36
2x18	2, 18
3x12	3, 12
4x9	4, 9
6x6	6
36:	1, 2, 3, 4, 6, 9, 12, 18, 36



Multiple: a multiple of a number is a PRODUCT of that number by any other whole number

Looks Like

7: 7x1/7, 7x2/14, 7x3/21, 7x4/28, ...∞

6: 6x1/6, 6x2/12, 6x3/18, 6x4/24 ...∞

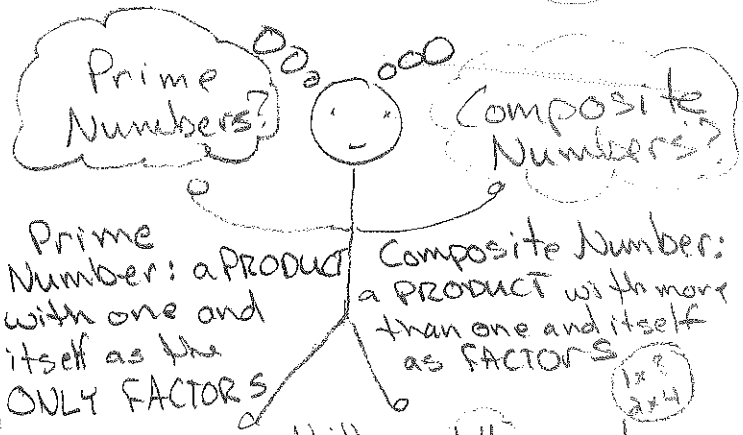
Common Multiples

2 or more products that have the same multiple(s)

2: 2, 4, 6, 8, 10, 12, ...

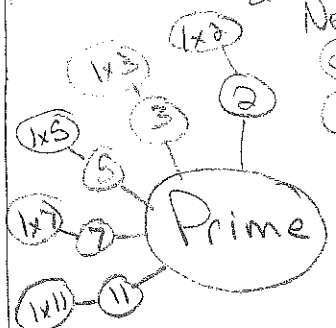
3: 3, 6, 9, 12, 15, ...

The common multiples for 2 and 3 are 6 and 12.

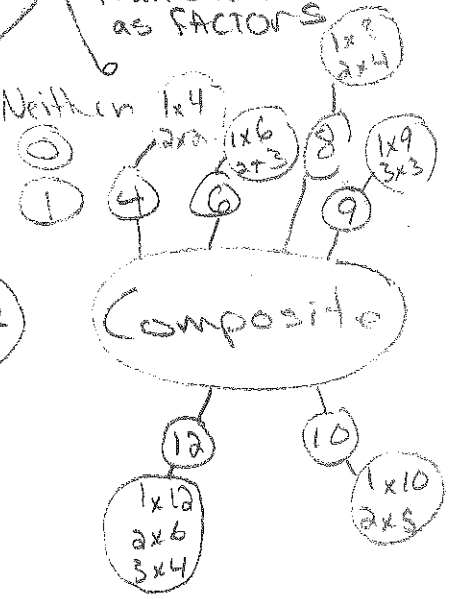


Prime Number: a PRODUCT with one and itself as the ONLY FACTORS

Composite Number: a PRODUCT with more than one and itself as FACTORS



Neither 1x4 are



What we know...

Inquiry
Factors & Multiples

What we want to learn...

STANDARDS + MATHEMATICAL PRACTICES

- We will generate number patterns that follow a rule using factors and multiples that express regularity in repeated reasoning.
- We will look for and make use of structure to define prime and composite numbers.