PRIME FACTORIZATION

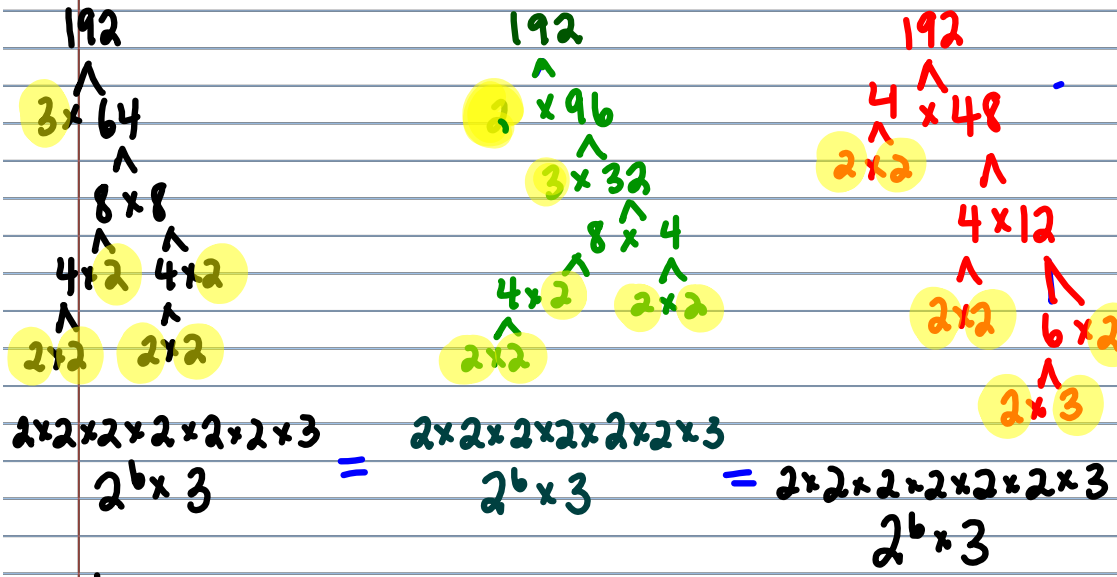
Prime Numbers	Composite Numbers	Neither
a whole # that is greater than 1 with ONLY one and itself as factors. (a whole # greater than 1 that can only be divided evenly by one and itself.)	a whole # greater than one with 3 or more factors. (a whole # that is greater than 1 that can divide evenly by more factors than one and itself.)	0 and 1 are not prime or composite Fractions and decimals are not prime or composite Negative numbers are not prime or composite.
Examples: 2, 23, 5, 7, 3, 29, 17, 11, 101, 79, 13	**Examples:** 40, 27, 87, 21, 99, 18, 12, 24, 1000, 49, 15, 22, 72, 102	

Prime Factorization: a composite # written with its prime factors.

(Hint: Writing a composite number as a multiplication problem using prime factors.)

Prime Factorization Notes

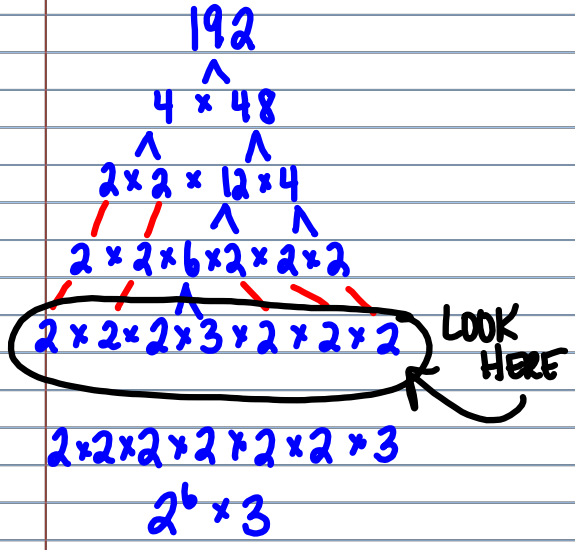
Factor Trees



Hints:

1. Circle or highlight prime factors.
2. Write the prime factors in order from least to greatest.

Drag and Drop Method

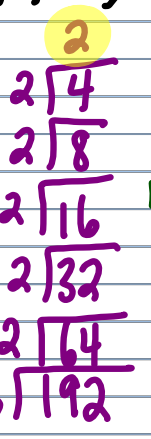


2x2x2x2x2x2x3

$2^6 \times 3$

Division Method

* ALWAYS divide by a prime number (2, 3, 5, 7, 11, 13, 17...)

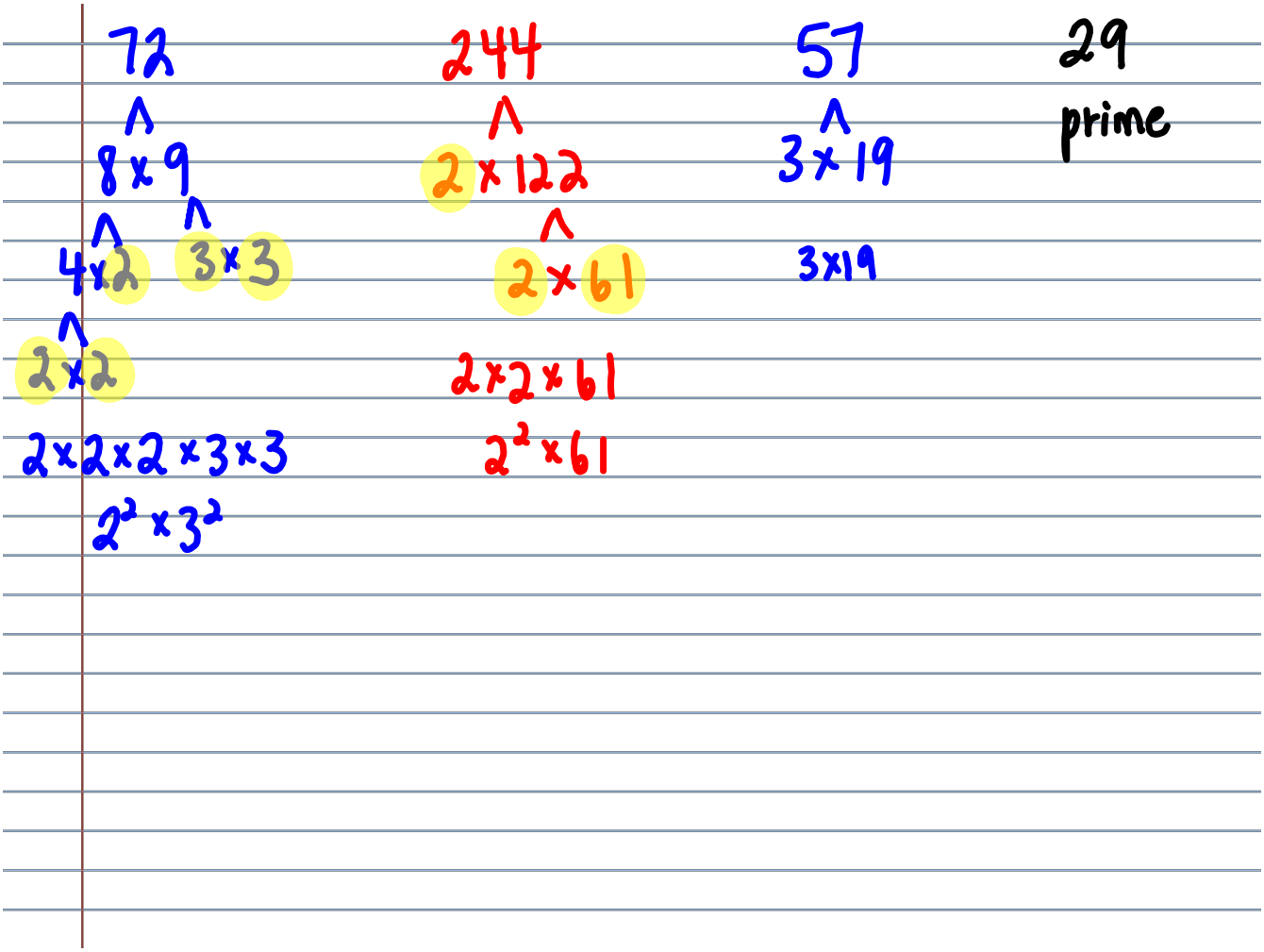


* when you end with a prime number you are done!

2x2x2x2x2x2x3

$2^6 \times 3$

Prime Factorization Notes



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