PRIME FACTORIZATION

GOAL: REWRITE A NUMBER AS THE PRODUCT (MULTIPLICATION) OF ONLY PRIME NUMBERS

FACTOR TREE METHOD

- Write the given number to begin.
- Choose two numbers which multiply to the given number. These two numbers will form your first two branches.
- If the number is prime, circle it. You will not need to do anything else to this number.
- If the number is composite, find two numbers which multiply to the number. These new numbers will form new branches.
- Continue until all branches have ended in prime numbers.

EXAMPLE: FIND THE PRIME FACTORIZATION OF 120.

BIRTHDAY CAKE METHOD

- Write the given number to begin.
- Find a prime number that divides evenly into the given number. Write this number beside the given number.
- Divide the given number by the prime number and write the result as the next "layer" of the cake.
- Find a prime number that divides evenly into the new number.
- Repeat the process until you end with a "1." This will be the "candle" for your cake!

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