

PRIME FACTORIZATION REFERENCE

First 15 Prime Numbers

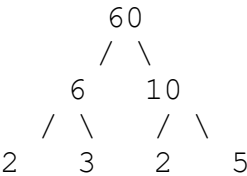
2 3 5 7 11 13 17 19 23 29 31 37 41 43 47

Common Factorizations

Number	Prime Factors	Exponent Form
12	$2 \times 2 \times 3$	$2^2 \times 3$
24	$2 \times 2 \times 2 \times 3$	$2^3 \times 3$
36	$2 \times 2 \times 3 \times 3$	$2^2 \times 3^2$
100	$2 \times 2 \times 5 \times 5$	$2^2 \times 5^2$

The Factor Tree Method

Example: 60



Steps:

1. Choose any two factors.
2. If a factor is prime, circle it.
3. If composite, branch again.
4. Stop when only primes remain.

Divisibility Rules

2	Ends in 0, 2, 4, 6, 8
3	Sum of digits is divisible by 3
5	Ends in 0 or 5
10	Ends in 0