

PRIME FACTORIZATION REFERENCE

Primes < 50

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

Divisibility Rules

2: Ends in 0, 2, 4, 6, 8

3: Sum of digits divisible by 3

5: Ends in 0 or 5

Definitions

Prime: Only 1 and itself.

Composite: More than 2 factors.

1: Neither prime nor composite.

FACTOR TREE WORKSPACE

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STEPS TO FACTORIZE

1. Divide the number by the smallest possible prime (usually 2, 3, or 5).
2. Write down the two factors as branches.
3. If a factor is prime, circle it.
4. If a factor is composite, repeat the process until all branches end in prime numbers.
5. Write the final result as a product (e.g., $2^2 \times 3 \times 5$).

Mathematics Study Aid – Prime Factorization Worksheet Template