Least Common Multiple (LCM) of Integers and Monomials

Prime Numbers:

Examples:

Prime factorization:

We do this by:

Examples: Make a factor tree of the following numbers to find their prime factorization.

a) 40   b) 30   c) 45   d) 70

LCM of Two Integers

① Make factor trees for each number to find their prime factorizations

② Make a Venn diagram of each prime factorization

③ Multiply the numbers in the Venn diagram → that is your LCM

Examples: Find the LCM of the following pair of numbers:

a) 10 and 15   b) 5 and 2   c) 6 and 8

d) 8 and 20   e) 4 and 10

LCM of Monomials:

①Make a factor tree of the integers in each monomial to determine the LCM of the integers

② The LCM of your variables will be the ones with the highest power (common terms)

Examples:　　　Find the LCM of the following monomials:

a) $2x^3y$ and $3x^5y^3$