

1. Binary representation:
  - a. Each hexadecimal digit corresponds to a 4-bit binary sequence. Convert each digit individually and combine the results.
  - b.  $3A2 \text{ (hex)} = 0011 \ 1010 \ 0010 \text{ (bin)}$
2. Octal representation:
  - a. Group the binary representation into groups of 3 bits from right to left, and convert each group to its octal equivalent.
  - b.  $0011 \ 1010 \ 0010 \text{ (bin)} = 0342 \text{ (oct)}$
3. Decimal representation:
  - a. Multiply each digit of the hexadecimal number by 16 raised to the power of its position and sum them up.
  - b.  $3A2 \text{ (hex)} = (3 * 16^2) + (10 * 16^1) + (2 * 16^0)$   
 $= (3 * 256) + (10 * 16) + (2 * 1) = 768 + 160 + 2 = 930 \text{ (dec)}$

Binary: 0011 1010 0010

Octal: 0342

Decimal: 930

1. Convert the decimal number (9010) to hexadecimal format:
  - a.  $9010 \text{ (dec)} = 232A \text{ (hex)}$
2. Perform the calculations:
  - a. Sum:
    - i.  $1C01 \text{ (hex)} + 232A \text{ (hex)} = 3E2B \text{ (hex)}$
  - b. Product:
    - i.  $1C01 \text{ (hex)} * 232A \text{ (hex)} = 3862332A \text{ (hex)}$

the sum of the hexadecimal number 1C01 and the decimal number 9010 is 3E2B (hex), and the product is 3862332A (hex).