

Binary – Hexadecimal Conversion

example:

Convert the binary number 10110101 to a hexadecimal number
Divide into groups for 4 digits 1011 0101 (starting from the right)
Convert each group to hex digit B 5
Therefore $10110101_2 = B5_{16}$

Another example: Convert the binary number 110101110001100 to hexadecimal

Divide into groups of 4 digits 0110 1011 1000 1100 (added a leading zero)
Convert each group to hex digit 6 B 8 C

Therefore $110101110001100_2 = 6B8C_{16}$

To convert a hexadecimal number to a binary number, convert each hexadecimal digit into a group of 4 binary digits.

Example: Convert the hex number 374F into binary

Convert the hex digits to binary 0011 0111 0100 1111

Therefore $374F_{16} = 0011011101001111_2$

