Title

Convert binary, octal and hexadecimal to decimal

Background Context

In mathematics and digital electronics, a binary number is a number expressed in the binary numeral system or base-2 numeral system which represents numeric values using two different symbols: typically 0 (zero) and 1 (one). The base-2 system is a positional notation with a radix of 2. Because of its straightforward implementation in digital electronic circuitry using logic gates, the binary system is used internally by almost all modern computers and computer-based devices. Each digit is referred to as a bit.

The octal numeral system, or oct for short, is the base-8 number system, and uses the digits 0 to 7.

The hexadecimal (also base 16, or hex) is a positional numeral system with a radix, or base, of 16. It uses sixteen distinct symbols, most often the symbols 0–9 to represent values zero to nine, and A, B, C, D, E, F (or alternatively a, b, c, d, e, f) to represent values ten to fifteen. Hexadecimal numerals are widely used by computer system designers and programmers.

Program Specifications

Create a program to convert binary, octal and hexadecimal to decimal.

Function details:

1. Enter a binary/octal/dexadecimal number
2. Convert the binary/octal/dexadecimal number to decimal number
3. Display the decimal number on the screen

Expectation of User interface:

The Program must have interface as below:

1. *Convert binary number to decimal number*
2. *Convert octal number to decimal number*
3. *Convert hexadecimal number to decimal number*
4. *Exit*

 Please choose number (1 – 4): 1
Enter binary number: 0011010
Decimal number is: 26

Guidelines

Student study relationship between binary/octal/hexa number and decimal number