

Day -1 Evening Assignment

①

Data type (14)

size (in bytes)

byte

1

ushort

2

uint

4

ulong

8

sbyte

1

short

2

int

4

long

8

float

4

double

8

decimal

16

char

2

boolean

true (1) false (0)

string

N.A

(it depends of string size)

②

② Number systems - 4

1. Binary Number system [0 to 1]
2. Octal Number system [0 to 7]
3. Decimal Number system [0 to 9]
4. Hexa Decimal Number system [0 to 9 and A to F]

③ Decimal to Binary

$$\begin{array}{r} 2 \overline{) 55} \\ 2 \overline{) 27} - 1 \\ 2 \overline{) 13} - 1 \\ 2 \overline{) 6} - 1 \\ 2 \overline{) 3} - 0 \\ 2 \overline{) 1} - 1 \end{array}$$

$$\begin{array}{r} 2 \overline{) 24} \\ 2 \overline{) 12} - 0 \\ 2 \overline{) 6} - 0 \\ 2 \overline{) 3} - 0 \\ 1 - 1 \end{array}$$

$$(55)_{10} = (110111)_2 \quad (24)_{10} = (11000)_2$$

$$\begin{array}{r} 2 \overline{) 18} \\ 2 \overline{) 9} - 0 \\ 2 \overline{) 4} - 1 \\ 2 \overline{) 2} - 0 \\ 1 - 0 \end{array} \quad (18)_{10} = (10010)_2$$

④ Binary to decimal

10110

1 0 1 1 0
 2^4 2^3 2^2 2^1 2^0

$$16 + 0 + 4 + 2 + 0$$

22

$$(10110)_2 = (22)_{10}$$

1011

1 0 1 1
 2^3 2^2 2^1 2^0

$$8 + 0 + 2 + 1$$

11

$$(1011)_2 = (11)_{10}$$

101110

1 0 1 1 1 0
 2^5 2^4 2^3 2^2 2^1 2^0

$$32 + 0 + 8 + 4 + 2 + 0$$

46

$$(101110)_2 = (46)_{10}$$