

Homework 1

- 1) Convert the following numbers from the given base to the other listed bases in the table. **It is important that you show the whole conversion methods used and not only the final result.**

Decimal	Binary	Octal	Hexadecimal
369.3125	?	?	?
?	10111101.101	?	?
?	?	326.5	?
?	?	?	F3C7.A

- 2) Do the following arithmetic operation in the binary number system:

a)

$$\begin{array}{r}
 25 \\
 - \\
 40 \\
 \hline
 ?
 \end{array}
 \quad \text{(here use the 1`s complement representation)}$$

b)

$$\begin{array}{r}
 (-28) \\
 - \\
 (+36) \\
 \hline
 ?
 \end{array}
 \quad \text{(here use the signed-2`s complement representation)}$$

Show how you do it. Don't give only the final result!

- 3) Show the bit configuration that represents the decimal number 365 in:

- a) Binary format
- b) BCD code
- c) ASCII code