EEEN 311 Logic Circuits & Microprocessors
Laboratory Manual 2

Problem 1)

Assign **00A6h** to **0080:0600h** and **8h** to **0080:0602h** and write a program that store;

a) the sum of these two numbers in **0080:0604h**
(Hint **add ax,ab** ; ax=ax + bx)

b) the difference of these two numbers in **0080:0606h**
(Hint **sub ax,ab** ; ax=ax - bx)

c) the product of these two numbers in **0080:0608h**
(Hint: **mul bx** ; ax = ax * bx)

d) the division of these two numbers (**A6h/8h**), the quotient in **0080:060Ah** and the remainder is in **0080:060Ch** (Hint: use **ax** for 16 bit dividend, and use **bl** for 8 bit divisor, after division **al** is quotient and **ah** is remainder, i.e. **div ax,bl**)

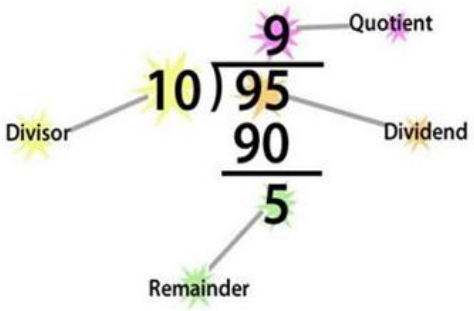

Fig 1: Long divison terms.

Shortcut for comment out/in: ctr + q / ctrl + w

If something is wrong:

- **Check the numbers' base (is it a decimal number or hexadecimal number?)**
- **Check the parenthesis (is it a number or an address?)**
- **Be careful with the order of the operands of the command you write.**
- **Always start with org 100h and finish with ret for com type application.**

When in doubt, you can always check your result by using a converter!