ET-386
Lab 4   Multiplication, CLRA, CLRB, NOP
Double Accumulator, Inherent Addressing

1.   Create, make appropriate comments, assemble and save the following program:

```
            NOP                     ;
            ORG    $0120            ;
TOP         FCB    $AA              ;
BOTTOM      FCB    $AA              ;
PRODUCT     RMB    2                ;

            ORG    $0100            ;
            CLRA                    ;
            CLRB                    ;
            LDAA   TOP              ;
            LDAB   BOTTOM           ;
            MUL                     ;
            STD    PRODUCT          ;
            NOP                     ;
            END
```

2.   This program multiplies $AA x $AA . Use your calculator to find this product. Notice that the product is
      two bytes wide. What is the product of this multiplication problem?

3.   **Use the trace method to execute this program.** Does the product match the calculated value?

      At what memory location is the multiplicand loaded?

      At what memory location is the multiplier loaded?

4.   Where is the high byte of the product stored?

      Where is the low byte of the product stored?

5.   Modify the program to multiply $EE x $EE. As always, try to economize memory.

6.   New commands: NOP: no operation
                           CLRA: clear accumulator A
                           CLRB: clear accumulator B
                           MUL: multiply
                           STD: store double accumulator