

# 8086 SAMPLE PROBLEMS

## 1. Adding two numbers

```
//press A ,give start address eg:1000

MOV AX,0
ADD AX,05
ADD AX,04
MOV [2000],AX
HLT

// press Esc
// press G , give start address , 1000
// press reset
// press M , give address 2000
// output will be on screen
```

## 2) Adding two numbers from memmory

```
MOV AX, [2000]
ADD AX, [2002]
MOV [2022], AX
HLT

// press M , enter 2000 , enter value if needed , press esc
// press M , enter 2002 , enter value if needed , press esc
// execute output will be on 2022
```

## 3) Array - moving elements of one array to another array

```
1000 : MOV CX , 05
1003 : MOV SI , 2000
1006 : MOV DI , 3000
1009 : MOV AX , [SI]
100A : MOV [DI] , AX
100D : INC SI //increment two times if 16 bit
100E : INC DI
100F : DEC CX
1010 : JNZ 1009
1013 : HLT
```

#### 4) Sum of array in location 2000

```
1000 : MOV CX , 05
1003 : MOV SI , 2000
1006 : MOV AX , 00
1009 : ADD AX , [SI]
100A : INC SI
100B : DEC CX
100C : JNZ 1009
100F : HLT
```

#### 5) To find average of above array

```
1000 : MOV CX , 05
1003 : MOV SI , 2000
1006 : MOV AX , 00
1009 : ADD AX , [SI]
100A : INC SI
100B : DEC CX
100C : JNZ 1009
100F : DIV 05
1010 : MOV [3000] ,AL           //result will be on AL and reminder on AH
1013 : HLT
```