Computer Science 240
Project No. 5 (arrays)

1. Suppose the following information came from a T-shirt company and now they are in array b of int type

	Small	**Medium**	**Large**	**X-Large**
Red	10	20	30	40
Green	20	10	40	30
Blue	5	15	20	25
Black	30	25	20	15

Write an assembly program to compute the following. Must use loop structures.
a. compute and display the total **number of all shirts**
b. Compute and display the total number of **Medium shirts**
c. Compute and print the total number of **Blue shirts**

2. Given array int a[5]={ 9, 3, 22, 8, 1};
Write assembly program to sort array a. The following is code to sort array a in C++ using Bubble sort

```
void swap (int a, int b)
{ int temp;
  temp=a; a=b; temp=b;
}
void Bsort(int a[], int n)
for(int i=0; i<n-1; ++i)
{
     for(int j=0; j<n-1; ++j)
     {
          if(  a[j]> a[j+1]   )
          {   swap( a[j], a[j+1] );  }
      }
}
```

Sample I/O
Original array a: 9 3 22 8 1
Sorted array a : 1 3 8 9 22

Use xchg mem, eax ; swaps two items. Both memory operands is illegal

3. Given the following three dimensional array int a[3][3][2]={ 1,2,3,…. 18};
Write assembly program to compute

a. Total number of **all shirts**
b. Total number of **medium size shi**rts
c. Total number of **short sleeves shirts**
d. Total number of **RED shirts**