Note

```
bitcount(int x)/* Sum 8 groups of 4 bits each */
{                  /*32位，分为8段，每段4位，求出其中1的个数*/
int mask=0x11111111; /* mask is 000|000|000|000|000|000|000|
                        000| */

int sum = x & mask;
    sum+= x>>1 & mask;
    sum+= x>>2 & mask; /*calculate the number of
    sum+= x>>3 & mask;  1's in each group*/
sum = sum+(sum>>16); /*combine high and low order
                       sums. Now, low order 16 bits consists of 4
```