Homework #3
Due: 06/30/2003

1) (20 Points) Translate the following C control structure into equivalent 8088/8086 assembler code:

```c
static int a;
static int b;
static int x;

if (a < b) {
    x = 1;
}
else {
    x = 2;
}
```

2) (20 Points) Translate the following C control structure into equivalent 8088/8086 assembler code:

```c
static int a;

do {
    a = a+1;
} while (a < 10)
```

3) (20 Points) Translate the following C control structure into equivalent 8088/8086 assembler code:

```c
static int ix;
static int array[10];

for (ix = 0; ix < 10; ix++) {
    array[ix] = ix;
}
```

4) (20 Points) Translate the following C control structure into equivalent 8088/8086 assembler code:

```c
static int k;
static int x;

switch(k) {
    case 0:
        x = 1;
        break;
    case 1:
        x = 12;
        break;
    default:
        x = 0;
}
```
5) (20 Points) Translate the following C function into equivalent 8088/8086 assembler code:
Implementation note: Although a good optimizing compiler could implement this routine using no memory for local variable storage, don’t perform this optimization. Allocate stack frame space and use this storage for local variables.

```c
int strlen(char * pch)
{
    int cnt;

    cnt = 0;
    while (*pch++ != '\0') {
        cnt += 1;
    }

    return cnt;
}
```