

20164389 멀티미디어공학과 브

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short student[9];

short형	short형	short형	short형
--------	--------	--------	--------

short형	short형
--------	--------

```
#include <stdio.h>
```

```
void main( )
```

```
{
```

```
    short student[20];
```

```
    student[1] = 10;
```

```
    printf("%d\n", student[1]);
```

```
}
```

C:\Windows\system32\cm...

10

계속하려면 아무 키나 누르십시오 . . .

```
#include <stdio.h>
```

```
void main( )
```

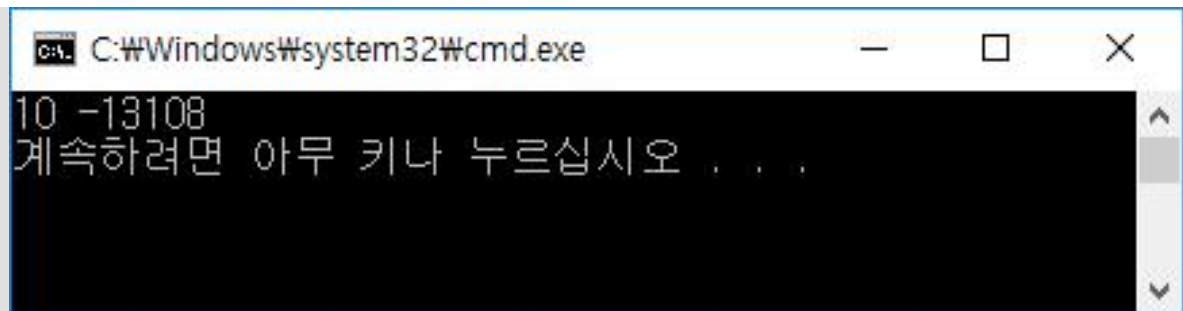
```
{
```

```
    short student[20];
```

```
    student[1] = 10;
```

```
    printf("%d %d\n", student[1], student[2]);
```

```
}
```



A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window has a black background and white text. The first line of output is "10 -13108". The second line is a Korean message: "계속하려면 아무 키나 누르십시오 . . .". The window has standard Windows window controls (minimize, maximize, close) in the title bar.

```
C:\Windows\system32\cmd.exe
10 -13108
계속하려면 아무 키나 누르십시오 . . .
```



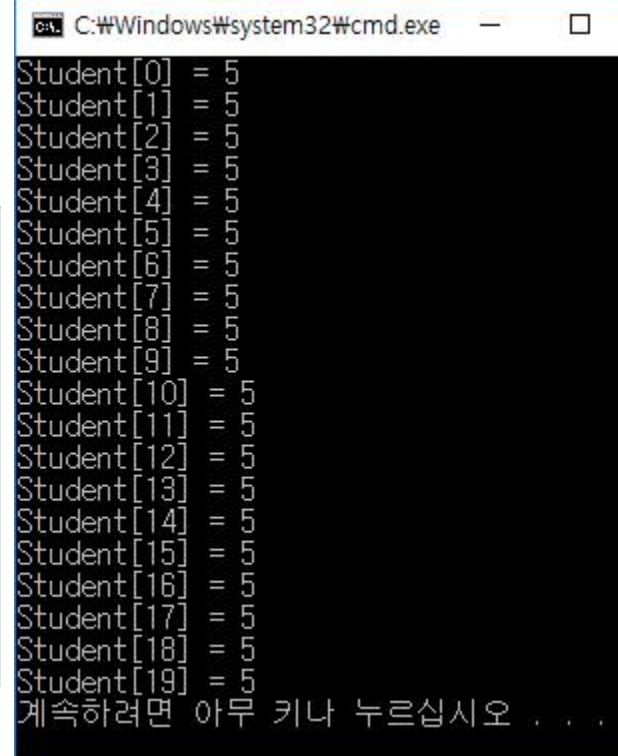
```
clude <stdio.h>
```

```
d main()
```

```
short student[20];
```

```
for (int i = 0; i < 20; i++) student[i] = 5;
```

```
for (int i = 0; i < 20; i++) printf("Student[%d] = %d\n", i, student[i]);
```



```
C:\Windows\system32\cmd.exe
Student[0] = 5
Student[1] = 5
Student[2] = 5
Student[3] = 5
Student[4] = 5
Student[5] = 5
Student[6] = 5
Student[7] = 5
Student[8] = 5
Student[9] = 5
Student[10] = 5
Student[11] = 5
Student[12] = 5
Student[13] = 5
Student[14] = 5
Student[15] = 5
Student[16] = 5
Student[17] = 5
Student[18] = 5
Student[19] = 5
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
```

```
void main( )
```

```
{
```

```
    short student[20] = {0,};
```

```
    student[1] = 10;
```

```
    printf("%d %d\n", student[1], student[2]);
```

```
}
```

cmd C:\Windows\system32\cmd.exe

10 0

계속하려면 아무 키나 누르십시오 . . .

```
#include <stdio.h>
```

```
void main( )
```

```
{
```

```
    char data[5] = { 1,2,3,4,5, };
```

```
    int result = 0, i;
```

```
    for (i = 0; i < 5; i++) {
```

```
        result = result + data[i];
```

```
    }
```

```
    printf("data 배열의 각 요소의 합은 %d 입니다. \n", result);
```

```
}
```

C:\Windows\system32\cmd.exe

data 배열의 각 요소의 합은 15 입니다.
계속하려면 아무 키나 누르십시오 . . .

```
char data1 =  
'H';  
char data2 = 'e';  
char data3 = 'l';  
char data4 = 'l';  
char data5 = 'o';  
char data6 = '!';
```

```
#include <stdio.h>
```

```
void main()
```

```
{
```

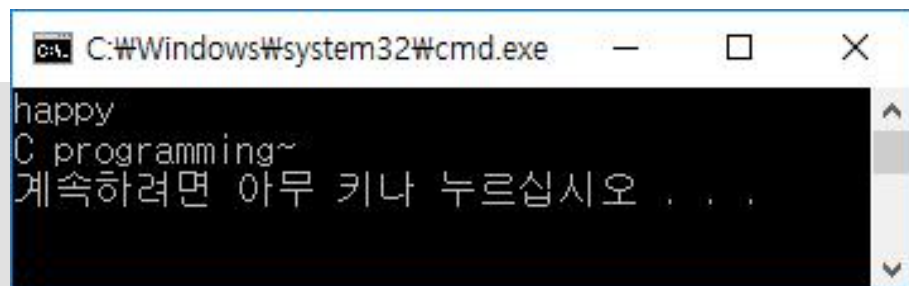
```
    char data[6] = { 'h','a','p','p','y',0 };
```

```
    char ment[] = { "C programming~" };
```

```
    printf("%s\n",data);
```

```
    printf("%s\n", ment);
```

```
}
```



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\system32\cmd.exe'. The window has a black background with white text. It displays the output of the C program: 'happy' on the first line, 'C programming~' on the second line, and '계속하려면 아무 키나 누르십시오 . . .' on the third line. The window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
C:\Windows\system32\cmd.exe
happy
C programming~
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    char data[6] = "happy";
```

```
    int count = 0;
```

```
    while (data[count] != 0) {
```

```
        count++;
```

```
    }
```

```
    printf("문자열의 길이는 %d 입니다.\n",count);
```

```
}
```

C:\ 선택 C:\Windows\system32\cmd.exe

문자열의 길이는 5 입니다.
계속하려면 아무 키나 누르십시오 . . .


```
#include <stdio.h>
#include <string.h>
```

```
void main()
{
```

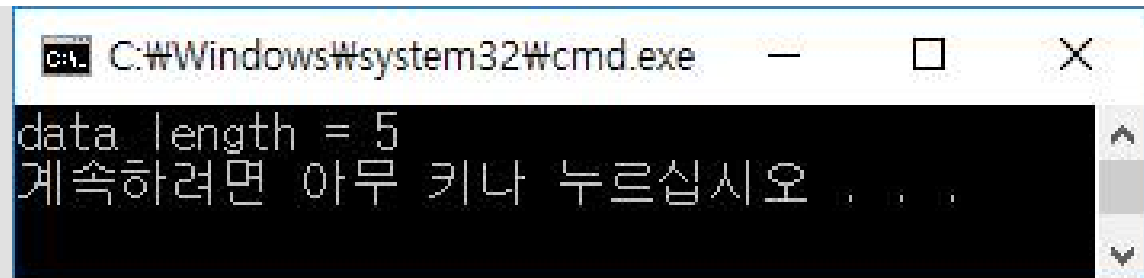
```
    int data_length;
```

```
    char data[10] = { 'h','a','p','p','y',0 };
```

```
    data_length = strlen(data);
```

```
    printf("data length = %d\n", data_length);
```

```
}
```



A screenshot of a Windows command prompt window. The title bar shows the path "C:\Windows\system32\cmd.exe". The window has a black background with white text. The first line of output is "data length = 5". The second line is a Korean message: "계속하려면 아무 키나 누르십시오 . . .".

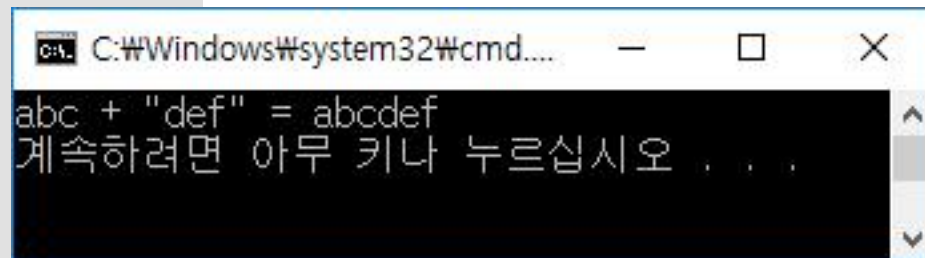
```
C:\Windows\system32\cmd.exe
data length = 5
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
#include <string.h>

void main()
{
    char data[10] = { 'a','b','c',0 };
    char result[16];

    strcpy(result, data);
    strcat(result, "def");

    printf("%s + ##"def##" = %s##n", data, result);
}
```



C:\Windows\system32\cmd....

abc + "def" = abcdef
계속하려면 아무 키나 누르십시오 . . .

data[0][0]	data[0][1]	data[0][2]	data[0][3]
data[1][0]	data[1][1]	data[1][2]	data[1][3]
data[2][0]	data[2][1]	data[2][2]	data[2][3]
data[3][0]	data[3][1]	data[3][2]	data[3][3]
data[4][0]	data[4][1]	data[4][2]	data[4][3]

temp[0][0]=1	temp[0][1]=2	temp[0][2]=3
temp[1][0]=4	temp[1][1]=5	temp[1][2]=6

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    char data[3][4] = { {0,0,2,0},{1,1,0,0},{2,1,0,2} };
```

```
    int x, y;
```

```
    for (y = 0; y < 3; y++) {
```

```
        for (x = 0; x < 4; x++) {
```

```
            printf("%d행 %d행에", y + 1, x + 1);
```

```
            if (data[y][x] == 1) printf(" 검은 돌이 놓여 있습니다.\n");
```

```
            else if (data[y][x] == 2) printf(" 흰 돌이 놓여 있습니다.\n");
```

```
            else printf("는 돌이 놓여 있지 않습니다.\n");
```

```
        }
```

```
    }
```

```
}
```

C:\Windows\system32\cmd.exe

```
1행 1행에 검은 돌이 놓여 있지 않습니다.  
1행 2행에 검은 돌이 놓여 있지 않습니다.  
1행 3행에 흰 돌이 놓여 있습니다.  
1행 4행에 검은 돌이 놓여 있지 않습니다.  
2행 1행에 검은 돌이 놓여 있습니다.  
2행 2행에 검은 돌이 놓여 있습니다.  
2행 3행에 검은 돌이 놓여 있지 않습니다.  
2행 4행에 검은 돌이 놓여 있지 않습니다.  
3행 1행에 흰 돌이 놓여 있습니다.  
3행 2행에 검은 돌이 놓여 있습니다.  
3행 3행에 검은 돌이 놓여 있지 않습니다.  
3행 4행에 흰 돌이 놓여 있습니다.  
계속하려면 아무 키나 누르십시오 . . .
```



```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    short birthday;
```

```
    short *ptr;
```

```
    ptr = &birthday;
```

```
    printf("birthday 변수의 주소는 %p입니다.\n ", ptr);
```

```
}
```

C:\Windows\system32\cmd.exe

birthday 변수의 주소는 010FFC9C입니다.
계속하려면 아무 키나 누르십시오 . . .

```
#include <stdio.h>
```

```
void main( )
```

```
{
```

```
    short birthday;
```

```
    short *ptr;
```

```
    ptr = &birthday;
```

```
    *ptr = 0x0412;
```

```
    printf("birthday = %d (0x%04X)\n", birthday, birthday);
```

```
}
```

C:\Windows\system32\cmd.exe

birthday = 1042 (0x0412)

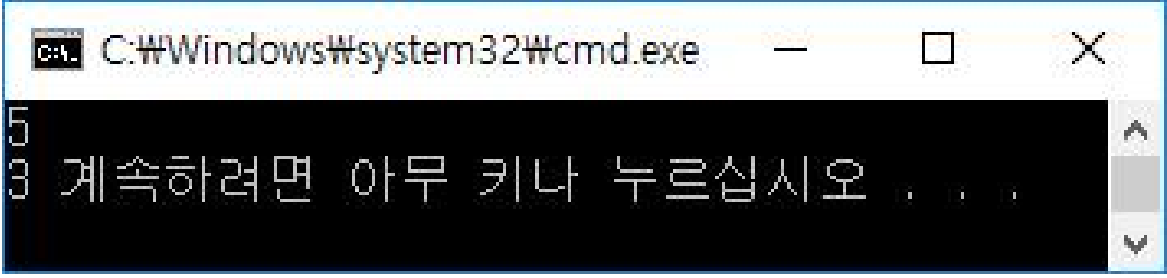
계속하려면 아무 키나 누르십시오 . . .


```
#include <stdio.h>

void Test(short *ptr)
{
    short soft = 0;
    soft = *ptr;
    *ptr = 3;

    printf("%d #n", soft);
}

void main()
{
    short tips = 5;
    Test(&tips);
    printf("%d ", tips);
}
```



A screenshot of a Windows command prompt window. The title bar shows the path 'C:\Windows\system32\cmd.exe'. The command prompt displays the output of the C program: the number '5' on the first line, followed by the Korean text '계속하려면 아무 키나 누르십시오 . . .' on the second line. The text is white on a black background.

```
#include <stdio.h>
```

```
void Swap(int *pa, int *pb)
{
    int temp = *pa;
    *pa = *pb;
    *pb = temp;
}
```

```
void main()
{
    int start = 96, end = 5;

    printf("before : start = %d, end = %d\n", start, end);
    if (start > end) {
        Swap(&start, &end);
    }
    printf("after : start = %d, end = %d\n", start, end);
}
```

C:\Windows\system32\cmd.exe

```
before : start = 96, end = 5
after : start = 5, end = 96
계속하려면 아무 키나 누르십시오 . . .
```

```
int data = 5, temp = 0;  
int *const p = &data;  
*p = 3;  
p = &temp; 오류발생
```

```
int data = 5;  
const int *p = &data;  
*p = 3; 오류발생
```

```
short data = 0;  
short *p =  
&data;  
p = p + 1;
```

```
char *p1 = (char *)100;  
short *p2 = (short *)100;  
int *p3 = (int *)100;  
double *p4 = (double *)100;  
p1++; //101번지  
p2++; //102번지  
p3++; //104번지  
p4++; //108번지
```



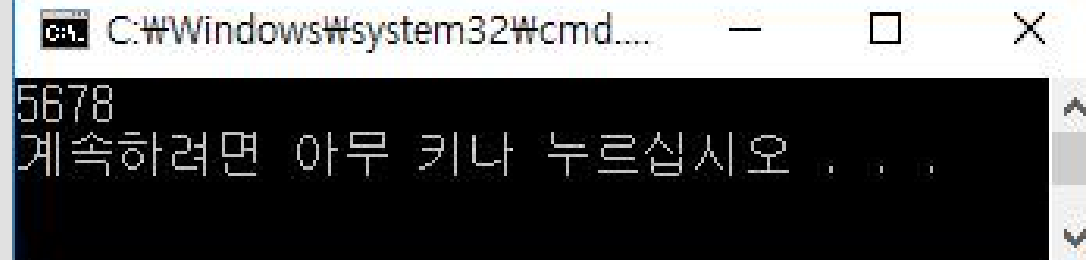
```
#include <stdio.h>

int GetData(void *p_data, char type)
{
    int result = 0;

    if (type == 1) result = *(char *)p_data;
    else if (type == 2) result = *(short *)p_data;
    else if (type == 4) result = *(int*)p_data;

    return result;
}

void main()
{
    int data = 0x12345678;
    printf("%X\n", GetData(&data, 2));
}
```

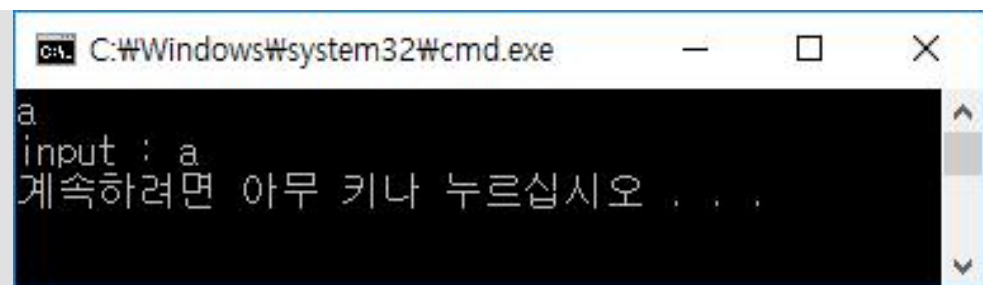


A screenshot of a Windows command prompt window. The title bar shows the path "C:\Windows\system32\cmd...". The command prompt displays the hexadecimal value "5678" on the first line. On the second line, there is a Korean message: "계속하려면 아무 키나 누르십시오 . . .".


```
#include <stdio.h>

void main( )
{
    int input_data;
    input_data = getchar();

    printf("input : %c\n", input_data);
}
```



The screenshot shows a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window has a black background with white text. The first line of output is "a", which corresponds to the character input in the code. The second line is "input : a", which is the output of the printf statement. The third line is "계속하려면 아무 키나 누르십시오 . . .", which is a Korean prompt for the user to press any key to continue.

```
C:\Windows\system32\cmd.exe
a
input : a
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    int input_data;
```

```
    input_data = getchar();
```

```
    printf("input : %c\n", input_data);
```

```
    input_data = getchar();
```

```
    printf("second input : %c\n", input_data);
```

```
}
```

C:\Windows\system32\cmd.exe

a

input : a

second input :

계속하려면 아무 키나 누르십시오 . . .

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    int input_data;
```

```
    input_data = getchar();
```

```
    getchar();
```

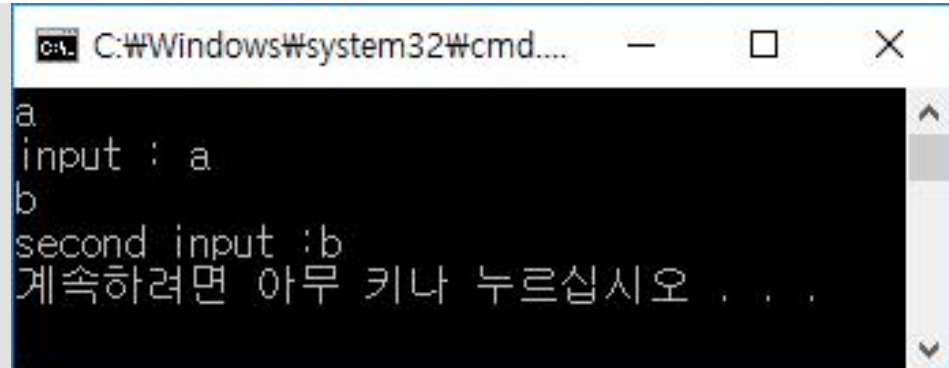
```
    printf("input : %c\n", input_data);
```

```
    input_data = getchar();
```

```
    getchar();
```

```
    printf("second input : %c\n", input_data);
```

```
}
```



```
C:\Windows\system32\cmd...  
a  
input : a  
b  
second input : b  
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    int input_data;
```

```
    input_data = getchar();
```

```
    rewind(stdin);
```

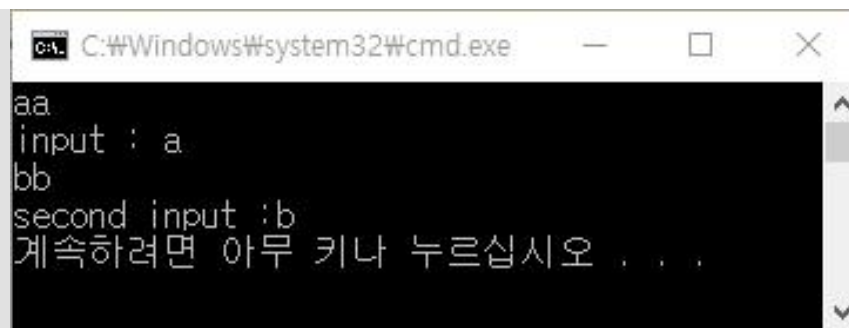
```
    printf("input : %c\n", input_data);
```

```
    input_data = getchar();
```

```
    rewind(stdin);
```

```
    printf("second input : %c\n", input_data);
```

```
}
```



```
C:\Windows\system32\cmd.exe
aa
input : a
bb
second input : b
계속하려면 아무 키나 누르십시오 . . .
```

```
#include <stdio.h>
```

```
void main( )
```

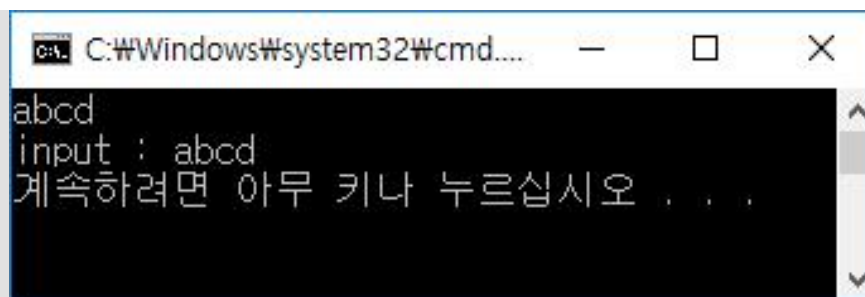
```
{
```

```
    char input_string[10];
```

```
    gets(input_string);
```

```
    printf("input : %s\n", input_string);
```

```
}
```



```
C:\Windows\system32\cmd...  
abcd  
input : abcd  
계속하려면 아무 키나 누르십시오 . . .
```



```
#include <stdio.h>

int ArrayToInteger(char string[])
{
    int count = 0, num = 0;

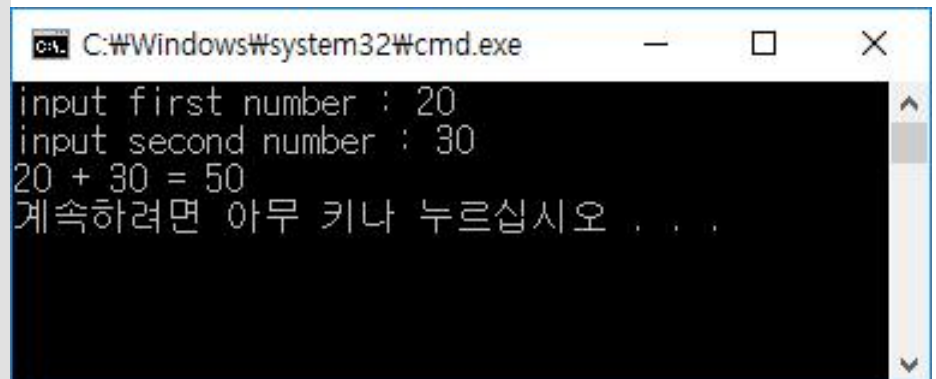
    while (string[count] != 0) {
        num = num * 10 + string[count] - '0';
        count++;
    }
    return num;
}

void main()
{
    int first_num, second_num;
    char first_string[16], second_string[16];

    printf("input first number : ");
    gets(first_string);
    printf("input second number : ");
    gets(second_string);

    first_num = ArrayToInteger(first_string);
    second_num = ArrayToInteger(second_string);

    printf("%d + %d = %d\n", first_num, second_num, first_num + second_num);
}
```



```
C:\Windows\system32\cmd.exe
input first number : 20
input second number : 30
20 + 30 = 50
계속하려면 아무 키나 누르십시오 . . .
```



```
#include <stdio.h>
```

```
void main()
```

```
{
```

```
    int num = 0;
```

```
    while (1) {
```

```
        printf("input age :");
```

```
        scanf("%d", &num);
```

```
        if (num > 0 && num <= 130) {
```

```
            break;
```

```
        }
```

```
        else {
```

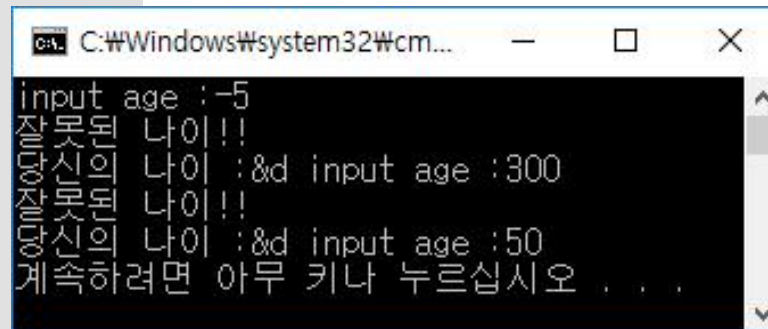
```
            printf("잘못된 나이!!\n");
```

```
        }
```

```
        printf("당신의 나이 :&d ", num);
```

```
    }
```

```
}
```



```
C:\Windows\system32\cmd.exe
input age :-5
잘못된 나이!!
당신의 나이 :&d input age :300
잘못된 나이!!
당신의 나이 :&d input age :50
계속하려면 아무 키나 누르십시오 . . .
```

