

C Programming

Tutorial 5

1. Do you see any problems from the following statements?

```
char a1[] = "ABCD", a2[] = "abcdef", a3[] = "12345";
```

```
strcpy(a1, a2);
```

```
strcat(a2, a3);
```

2. Do you think the following code would work?

```
char *p;
```

```
strcpy(p, "123");
```

3. Do you see any problem with the following code?

```
char *p;
```

```
*p = malloc(8);
```

4. When you need a large amount of memory for, e.g., an array, what issues do you need to consider?

5. When you freed the memory pointed to by p, what would be the value of p?

6. In function `func()`, you have the following code:

...

```
int *p;
```

```
p = malloc(80);
```

...

Since `p` is local to `func()`, do you really need to do `free(p)`?

7. Give a statement, which asks for memory space for an array of `n` ints using `malloc()`.

8. The following statement is correct. But, do you see any potential problems with it?

```
ptr = realloc(ptr, 20 * sizeof(int));
```