



Peer Instruction #12: More C Programming

Subtitled: The nightmare never ends!



```
short i = 32767;  
unsigned short j = 32767;  
printf("%d,%d\n", ++i, ++j);
```

What does the code shown above print?

- A. 32767, 32767
- B. 32767, 32768
- C. 32768, 32768
- D. -32768, 32768
- E. 0, 32768



```
float d = 1.0;  
int *p0 = (int *) &d;  
float *p1 = &d;  
printf("0x%08x,%.1f\n", *p0, *p1);
```

What does the code shown above print?

- A. 0x3f800000, 1.0
- B. 0x3f900000, 1.0
- C. 0x3fa00000, 1.0
- D. 0x3fb00000, 1.0



```
int array[] = {1, 2, 3, 4, 5, 6};  
printf("%d,", array[2]);  
printf("%d,", *(array+5));  
printf("%d\n", *(&array[4]));
```

What does the code shown above print?

- A. 2,5,2
- B. 2,5,4
- C. 3,6,4
- D. 3,6,5
- E. Will not compile



```
printf("%d, ", strcmp("Alpha","Beta"));  
printf("%d, ", strcmp("Beta","Beta"));  
printf("%d\n", strcmp("Gamma","Beta"));
```

What does the code shown above print?

- A. 0, 1, 0
- B. -1, 0, -1
- C. -1, 0, 1
- D. 1, 0, -1
- E. None of the above



```
char s[6] = "abcde";  
s[1] = 'f';  
s[2] = 0;  
printf("%s\n",s);
```

What does the code shown above print?

- A. abcde
- B. afcde
- C. af0de
- D. af0
- E. af



```
char s[6] = "abcde";  
printf("%d, %d\n", strlen(s), sizeof(s));
```

What does the code shown above print?

- A. 5, 5
- B. 5, 6
- C. 6, 6
- D. 6, 5
- E. None of the above



```
int i = 1234567;  
float f = 13579.24680;  
char *s = "abcdefgh";  
printf("%4d, %6.3f, %5s\n", i, f, s);
```

What does the code shown above print?

- A. 1234567, 13579.2468, abcdefgh
- B. 4567, 13579.247, defgh
- C. 1234, 579.247, abcde
- D. 1234567, 13579.247, abcdefgh

C Formatters



```
int i = 1234, j = 5678;  
foo(&i, &j);  
printf("%d, %d\n", i, j);
```

What does the code print, if the function it calls is defined as follows:

```
void foo(int *p, int *q)  
{  
    int *r = p; p = q; q = r;  
    *p = 1357; *q = 2468;  
}
```

- A. 1234, 5678
- B. 5678, 1234
- C. 1357, 2468
- D. 2468, 1357

Pointer Params