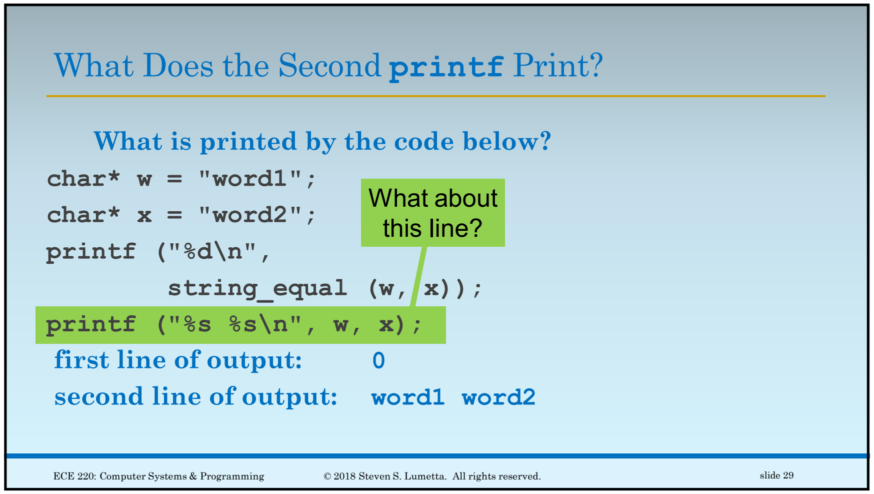


What Does the Second **printf** Print?

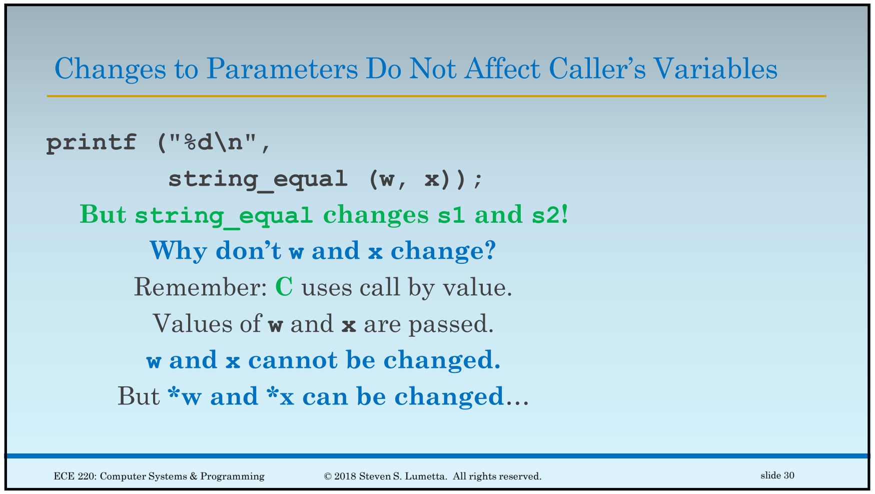
What is printed by the code below?

```
char* w = "word1";
char* x = "word2";
printf ("%d\n",
        string_equal (w, x));
printf ("%s %s\n", w, x);
```

What about this line?

first line of output: 0

second line of output: word1 word2



Changes to Parameters Do Not Affect Caller's Variables

```
printf ("%d\n",
        string_equal (w, x));
```

But string_equal changes s1 and s2!

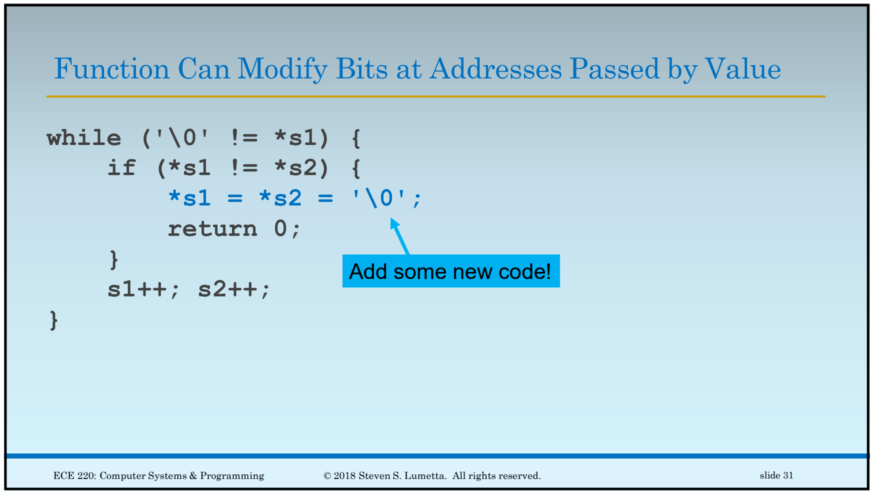
Why don't w and x change?

Remember: **C** uses call by value.

Values of **w** and **x** are passed.

w and x cannot be changed.

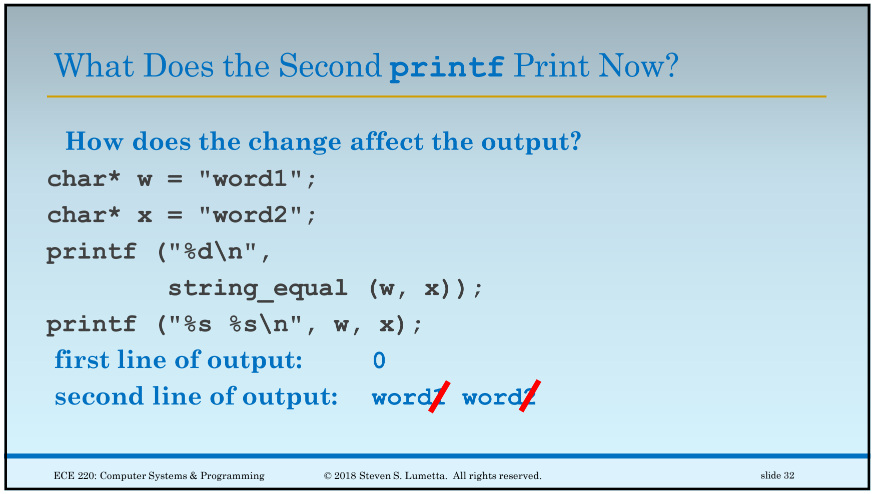
But ***w and *x can be changed…**



Function Can Modify Bits at Addresses Passed by Value

```
while ('\0' != *s1) {
    if (*s1 != *s2) {
        *s1 = *s2 = '\0';
        return 0;
    }
    s1++; s2++;
}
```

Add some new code!



What Does the Second **printf** Print Now?

How does the change affect the output?

```
char* w = "word1";
char* x = "word2";
printf ("%d\n",
        string_equal (w, x));
printf ("%s %s\n", w, x);
```

first line of output: 0

second line of output: word~~1~~ word~~2~~