week 1, continued

section by Fri at noon

cs50.net/section

supersections

- Less Comfortable
  - Sun 9/15, 2pm, Yenching Auditorium
- More Comfortable
  - Sun 9/15, 4pm, Yenching Auditorium

office hours

cs50.net/ohs

problem set 0

problem set 1

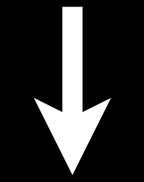
source code

```c
#include <stdio.h>

int main(void)
{
    printf("hello, world\n");
}
```

compiler

source code



compiler

source code

compiler

object code

```
10000011 00000001 00010001 00000000 00111101 11111100 01110100 00111101
00000000 01000000 00000000 00000000 00000000 00000000 00000000 00000000
10010000 00000000 00000000 00000000 01010000 00000000 00000111 00110000
00001011 00000001 00001011 00000011 00001010 00000000 00000000 00000000
00000000 00100000 00000000 00000000 00000000 00000000 00000000 00000000
00000000 00100000 00000000 00000000 00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
01110000 00010000 00000000 00100000 00000001 00000000 00000000 00000000
00000000 00000000 00000000 00100000 00000001 00000000 00000000 00000000
00000000 00000000 00000000 01000000 00000001 00000000 00000000 00000000
00000000 00100000 00000000 01000000 00000001 00000000 00000000 00000000
11111111 11111111 11111111 11111111 11111111 11111111 11111111 11111111
10010000 10000000 00000000 01000000 00000001 00000000 00000000 00000000
00101110 01100100 01111001 01101110 01100001 01101101 01101001 01100011
10110000 00000100 00000000 00100000 00000001 00000000 00000000 00000000
10110000 00000100 00000000 00100000 00000001 00000000 00000000 00000000
10100000 00000001 00000000 00000000 00000000 00000000 00000000 00000000
10110000 00000100 00000000 00000000 00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
00000000 00000000 00000000 00000000 00000000 00100000 00000000 00000000
...
```

when clicked
say hello, world

```c
#include <stdio.h>

int main(void)
{
    printf("hello, world\n");
}
```

conditions

```
if (condition)
{
    // do this
}
```

conditions

```
if (condition)
{
    // do this
}
else
{
    // do that
}
```

conditions

```
if (condition)
{
    // do this
}
else if (condition)
{
    // do that
}
else
{
    // do this other thing
}
```

conditions

```
if (x < y)
{
    printf("x is less than y\n");
}
else if (x > y)
{
    printf("x is greater than y\n");
}
else
{
    printf("x is equal to y\n");
}
```

Boolean expressions

```
if (condition || condition)
{
    // do this
}
```

Boolean expressions

```
if (condition && condition)
{
    // do this
}
```

switches

```
switch (expression)
{
    case i:
        // do this
        break;

    case j:
        // do that
        break;

    default:
        // do this other thing
        break;
}
```

loops

```
for (initializations; condition; updates)
{
    // do this again and again
}
```

loops

```
for (int i = 0; i < 10; i++)
{
    printf("hello, world!\n");
}
```

loops

```
while (condition)
{
    // do this again and again
}
```

loops

```
while (true)
{
    printf("hello, world\n");
}
```

loops

```
do
{
    // do this again and again
}
while (condition);
```

variables

```
int counter;
counter = 0;
```

variables

```
int counter = 0;
```

variables

```
int counter = 0;
while (true)
{
    printf("%d\n", counter);
    counter++;
}
```

functions

```
printf("hello, world\n");
```

functions

```
printf("hello, world\n");
```

functions

```
string name = GetString();
printf("hello, %s\n", name);
```

types of variables

```
char

double

float

int

long long

...
```

CS50 Library

cs50.h

```
bool

string
```

CS50 Library

cs50.h

```
GetChar

GetDouble

GetFloat

GetInt

GetLongLong

GetString
```

printf

%c

%d

%f

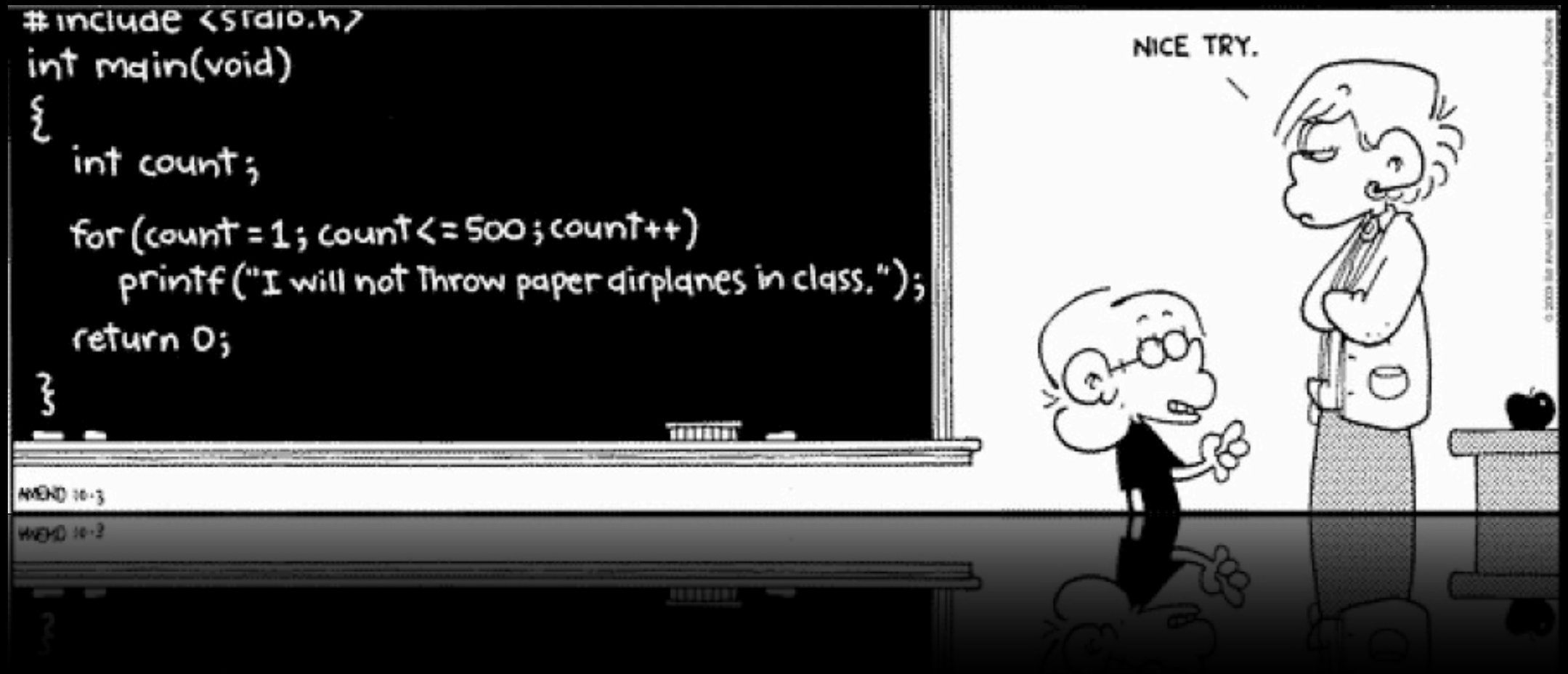
%lld

%s

...

printf

```
\n
\r
\'
\"
\\
\0
...
```


#include <stdio.h>
int main(void)
{
int count;
for (count = 1; count <= 500; count++)
printf ("I will not throw paper airplanes in class.");
return 0;
}
NICE TRY.

to be continued...