

1) Write C code for Hello World. The whole thing. Get all of it, so it would compile and run. The syntax has to be right.

```
#include <stdio.h>
int main()
{
    printf("Hello World\n");
}
```

2) Write C code to compute the sum of the numbers from 1 to 100 (inclusive). Use a loop.

```
int total = 0;
for (int i = 1; i <= 100; i = i + 1)
    total = total + i;
```

3) Convert each of these base-10 numbers to unsigned 4-bit binary

3	8	11	14
0011	1000	1011	1110

4) Convert each of these base-10 numbers to signed magnitude 4-bit binary

-3	-1	-7	-5
0011	0001	0111	0101 <- Positive
1011	1001	1111	1101 <- Set left bit

5) Convert each of these base-10 numbers to 2's complement 4-bit binary

-3	-1	-7	-5
0011	0001	0111	0101 <- Positive
1100	1110	1000	1010 <- Flip
+1	+1	+1	+1 <- Plus 1
1101	1111	1001	1011 <- Answer



For the C coding... Make sure you have your curly braces correct, the double quotes, the `\n` for the new line.... Syntax matters, and if you don't know the syntax, your coding life will be very difficult.

Converting from decimal to binary and back should be easy. You should become as comfortable with this as you (hopefully) are with regular addition and subtraction. You might need some practice.

As a professional computer scientist, you'll need to take responsibility for your work, and get things right. If you're hazy on anything — it's up to you to get it all clear. Practice. Ask questions. Look up answers in the textbook or on-line. No one will hold your hand — everyone is already busy taking care of their own stuff. Be brutally honest with yourself about what you understand, and where you're confused — and then put in the work to clear up any problem areas.