## **Exercises:**

1. Get the ``Hello, world!" program to work on your computer. If you're using a Unix machine, the instructions in the notes should get you started. If you're using a commercial compiler on a home computer, the compiler's instruction manuals should (really, must) tell you how to enter, compile, and run a program. (In either case, the ``Compiling C Programs" handout should help, too.)

```
2. What do these loops print? for(i = 0; i < 10; i = i + 2) {
   printf("%d\n", i); }
for(i = 100; i >= 0; i = i - 7) {
   printf("%d\n", i); }
for(i = 1; i <= 10; i = i + 1) {
  printf("%d\n", i); }
for(i = 2; i < 100; i = i * 2) {
  printf("%d\n", i); }
  0
   2
   4
   6
   8
   100
   93
   86
   79
   72
   65
   58
   51
   44
   37
   30
   23
```

| 16  |
|---|
| 9   |
| 2   |
| 1   |
| 2   |
| 3   |
| 4   |
| 5   |
| 6   |
| 7   |
| 8   |
| 9   |
| 10  |
| 2   |
| 4   |
| 8   |
| 16  |
| 32  |
| 64  |
|   |
| 3. Write a program to print the numbers from 1 to 10 and their squares: |
| 1 1 2 4 3 9 10 100  |
|   |
| 4. Write a program to print this triangle:                              |
| *   |
| **  |
| ***   |
| ****  |
| ****  |
| *****   |
|   |

```
******

******

******
```

Don't use ten printf statements; use two nested loops instead. You'll have to use braces around the body of the outer loop if it contains multiple statements:

```
for(i=1;\,i <= 10;\,i=i+1)\;\{ /* multiple statements */ /* can go in here */ } (Hint:\,a\;string\;you\;hand\;to\;printf\;does\;not\;have\;to\;contain\;the\;newline\;character\;\n.)
```