Introduction to Computer Systems
Homework #2
Due: March 30th, 2007 (in class)

This homework assignment is worth two homework problems (that is, up to six points). You must turn in your code for both functions and your sample output.

A. Write a function, `int isBigEndian()` to determine whether a machine is big endian or little endian. Your solution should not depend on the word size of the machine.

B. Write a function, `int networkToNative(unsigned char *bytes)`, that converts a vector of four bytes, `bytes`, where byte 0 came off the network first into an integer in a machine’s native format. (Even though it would be clever, you may not use `ntohl`.)

C. Run your `networkToNative` function with the following version of main on `lilac.cs.uchicago.edu` and a Mac in the MacLab. Turn in your results. Label each result with the name of the machine.

```c
int main() {
    char y[4] = {0xff, 0xee, 0xdd, 0xcc};

    printf("isBig: %d \t\t result: 0x%x\n", isBigEndian(),
            networkToNative(y));
}
```