Introduction to Computer Systems
Homework #2
Due: Apr 04, 2008 (in class)

This homework assignment is worth two homework problems. You must turn in your code for both functions and your sample output (as below).

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 (where byte 0 came off the network first) into an integer in the machine's native format. You may not use `ntohl`.

C. Run your `networkToNative` function with the following version of main on `lilac.cs.uchicago.edu` and on `andromeda.cs.uchicago.edu` (gcc is located in `/opt/csw/gcc3/bin/gcc` on that machine). Turn in your results. Label each result with the name of the machine.

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

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