CIS 2107

September 22, 2016
Administrative Stuff

- Assignment 3 posted yesterday
- Assignment 4 posted soon
- Quiz 2 on Tuesday, September 27
  - could cover anything that we’ve done up to and including 9/20
Last Time: Pointers

- recall pointer variables store addresses
  - doesn’t matter what type (e.g., a char* holds an address, an int* holds an address).
- the differences between pointer types:
  1. when we de-reference, the number of bytes read:
     - char*, we read a single byte
     - int*, we read sizeof(int) bytes (probably 4)
  2. arithmetic scaled by the size of pointer type, e.g., p++
     - if p is an int*, it’s the same as p=p+sizeof(int)
     - if p is a long*, it’s the same as p=p+sizeof(long)
- used our trick of a char* containing the address of an int to:
  - print the individual bytes of the int
  - learn that our Intel chips are little endian
Suppose that on a given machine, ints are 6 bits long. what is:

1. 00 0101 if we treat it as unsigned? if we treat it as signed?
2. 10 1001 if we treat it as unsigned? if we treat it as signed?
3. the largest unsigned number we can represent?
4. the smallest unsigned number we can represent?
5. the largest signed number we can represent?
6. the smallest signed number we can represent?