

Your Name: \_\_\_\_\_

**Problem #1:**

Write decimal number 38 in:

(a.) binary:

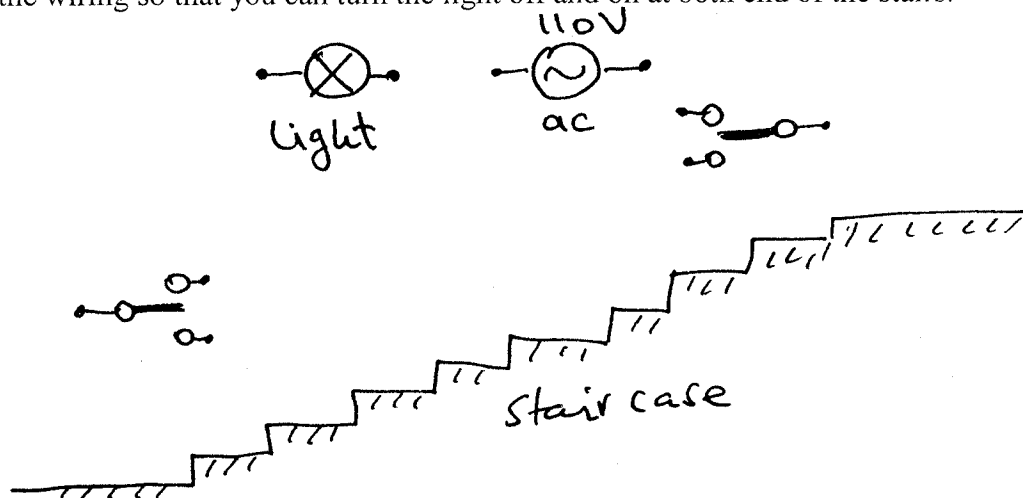
(b.) hexadecimal:

(c.) octal:

**Problem #2:**

Given are the light bulb, two double-throw switches and power source.

Finish the wiring so that you can turn the light off and on at both end of the stairs:



**Problem #3:**

When is the light ON in the circuit shown? Note when  $a=1$  (closed)  $\bar{a}=0$  (open).

