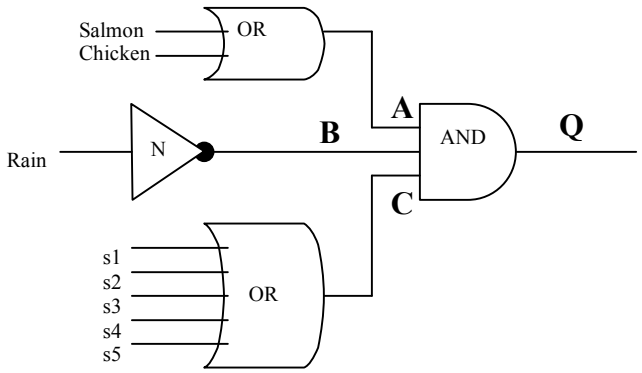
BOOLEAN LOGIC PROBLEMS

George Boole
(1815-1864) was an English mathematician and logician who devised a system for representing logical symbolic relationships now known as ***Boolean algebra****. The logical relationships, called* ***Boolean expressions****, use the logical operators AND, OR, and NOT between entities. These expressions have application in computer circuit design, information retrieval strategies, and logic problems such as this.*

#1- I want to go to a picnic. There are conditions to be met before I can go. Construct a logic gate circuit to determine if I may go on to the picnic. Gates with more than 2 inputs cay be used. 1 = yes 0 = no

- Krogers must have either baked chicken or salmon on sale.
- It must not be raining
- At least one of my five students has to go with me.

$$Q = \{\text{Chicken} \oplus \text{Salmon}\} \bullet \{\overline{rain}\} \bullet \{s1 \oplus s2 \oplus s3 \oplus s4 \oplus s5\}$$



TRUTH TABLE

A	B	C	Q
1	1	1	1
0	1	1	0
1	0	1	0
1	1	0	0