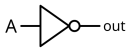
Name:



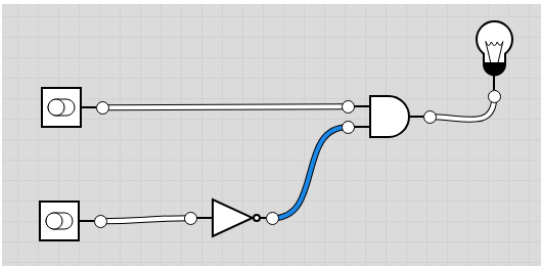
1. Given

$$A \wedge \neg B$$

   (a) Write the truth table.

A	B	$Output$
0	0	0
0	1	0
1	0	1
1	1	0

   (b) Draw the circuit diagram.



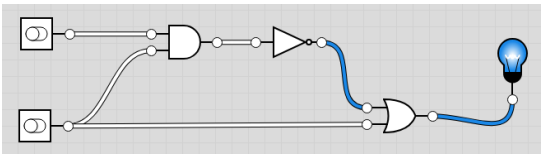
2. Given

$$\neg(A \wedge B) \vee B$$

   (a) Write the truth table.

A	B	$Output$
0	0	1
0	1	1
1	0	0
1	1	1

   (b) Draw the circuit diagram.



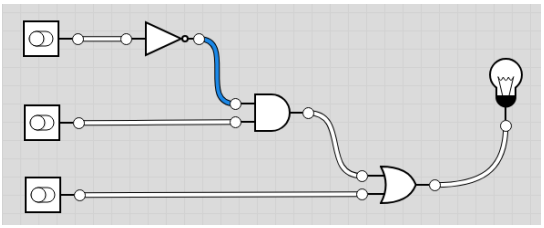
3. Given

$$\neg A \wedge B \vee C$$

   (a) Write the truth table.

A	B	C	$Output$
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	0
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

   (b) Draw the circuit diagram.



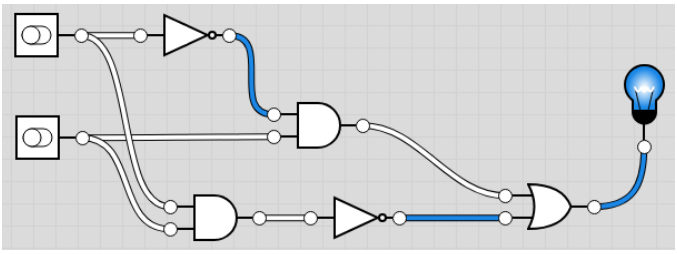
4. Given

$$(\neg A \wedge B) \vee \neg(A \wedge B)$$

(a) Write the truth table.

A	B	$Output$
0	0	1
0	1	1
1	0	1
1	1	0

(b) Draw the circuit diagram.

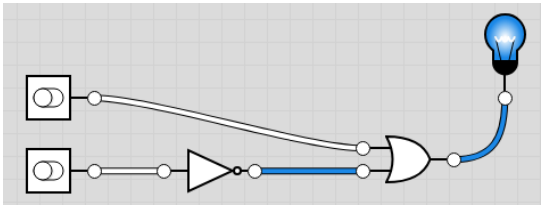


5. Draw a circuit diagram to match this truth table:

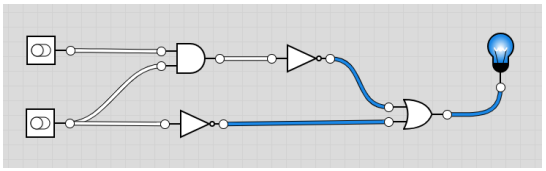
A	B	$Output$
0	0	1
0	1	0
1	0	1
1	1	1

One way to capture this logic is with the expression

$$A \vee \neg B$$



6. Write the Boolean expression corresponding to this circuit:



This logic is captured with:

$$\neg(A \wedge B) \vee \neg B$$