ASSIGNMENT-1 [AVR GCC]
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PROBLEM STATEMENT:

state and Prove Commutative Law
The definition of commutative law states that when we add or multiply two numbers then the resultant value remains the same, even if we change the position of the two numbers. Or we can say, the order in which we add or multiply any two real numbers does not change the result.

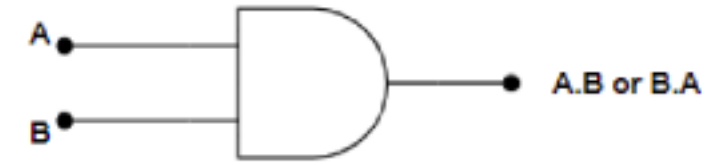
sollution: A+B = B+A
A.B = B.A

I. Components

Component	*Value*	*Count*
Arduino	UNO	1
Resistor	220 Ohm	1
Jumper wires	-	as required

Procedure:

1) First make the 2,3 digital pins of arduino as input pins and declare the 13 pin as output pin.
2)Write the given logic in code and upload in to the arduino.



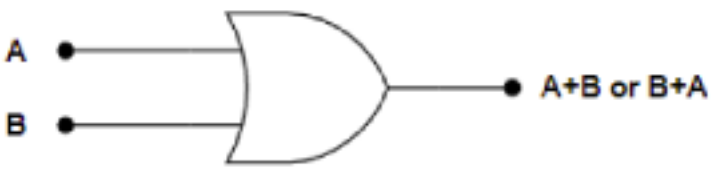


Fig. 1. Caption

Truthtable: A+B=B+A

A	B	A+B	B+A
0	0	0	0
0	1	1	1
1	0	1	1
1	1	1	1

Truthtable: A.B=B.A

A	B	AB	BA
0	0	0	0
0	1	0	0
1	0	0	0
1	1	1	1

you may refer these code in github
link :https://github.com/Dsrinivas-sudo/fwc-1/avr-gcc

include¡avr/io.h¿
include¡util/delay.h¿
int main(void)
int A,B;
int a=0,b=0;
DDRB —=((1 ¡ DDB5));
while(1)
A=a——b;
B=b——a;
if(A==1)
PORTB=((1¡¡PB5));
return 0;

Conclusion:

Hence have implemented the commulative law of boolean algebra in arduino and verified the outputs