

```
def main():
    a=False
    b=True
    print("not operation of a = ",not(a))
    print("or operation of a and b = ",(a or b))
    print("and operation of a and b = ",(a and b))
    print("xor operation of a and b = ",(a ^ b))
    print("xnor operation of a and b = ",not(a ^ b))
    print("implication of a and b = ", imp(a,b))
    print("bidirectional operation of a and b = ",bidir(a,b))
def imp(a,b):
    return (not(a)) or b
def bidir(a,b):
    return (imp(a,b) and imp(b,a))
if __name__ == '__main__':
    main()

    not operation of a =  True
    or operation of a and b =  True
    and operation of a and b =  False
    xor operation of a and b =  True
    xnor operation of a and b =  False
    implication of a and b =  True
    bidirectional operation of a and b =  False
```