1. Implement the Propositional basic logic gates along with implies and biconditional.

```
## change a and b accordingly
a = True
b = True
print(('a and b is',a and b))
print(('a or b is',a or b))
print(('not a is',not a))
print(('not a or b is', not a or b))
print(('(not a or b) and (not b or a)', (not a or b) and (not b or a)))
```

```
('a and b is', True)
('a or b is', True)
('not a is', False)
('not a or b is', True)
('(not a or b) and (not b or a)', True)
```

```
## change a and b accordingly
a = True
b = False
print(('a and b is',a and b))
print(('a or b is',a or b))
print(('not a is',not a))
print(('not a or b is', not a or b))
print(('(not a or b) and (not b or a)', (not a or b) and (not b or a)))
```

```
('a and b is', False)
('a or b is', True)
('not a is', False)
('not a or b is', False)
('(not a or b) and (not b or a)', False)
```

```
## change a and b accordingly
a = False
b = True
print(('a and b is',a and b))
print(('a or b is',a or b))
print(('not a is',not a))
print(('not a or b is', not a or b))
print(('(not a or b) and (not b or a)', (not a or b) and (not b or a)))
```

```
('a and b is', False)
('a or b is', True)
('not a is', True)
('not a or b is', True)
('(not a or b) and (not b or a)', False)
```

```
## change a and b accordingly
a = False
b = False
print(('a and b is',a and b))
print(('a or b is',a or b))
print(('not a is',not a))
print(('not a or b is', not a or b))
print(('(not a or b) and (not b or a)', (not a or b) and (not b or a)))
```

```
('a and b is', False)
('a or b is', False)
('not a is', True)
('not a or b is', True)
('(not a or b) and (not b or a)', True)
```