

TASK_3

1. `a = 10`
`b = 5`
`print(a > 3 and b < 10) # TRUE`
2. `x = 7`
`print(not (x < 10) #False`
3. `x = 4`
`y = 12`
`print(x < 5 or y < 10) #True`
4. `age = 18`
`has_id = False`
`print(age >= 18 and has_id) #False`
5. `logged_in = True`
`admin = False`
`print(logged_in or admin) # True`
6. `is_sunny = False`
`have_umbrella = True`
`print(not is_sunny and have_umbrella) #True`
7. `a = True`
`b = False`
`print(not (a or b)) #False`
8. `temp = 25`
`print(temp > 20 and temp < 30) #True`
9. `marks = 45`
`print(not (marks >= 50 or marks == 49)) #True`
10. `x = 0`
`y = 10`
`print(not x and y > 5) #True`

LOGICAL OPERATORS2

1. `x = 15`
`y = 10`
`z = 5`
`x += 5`
`Print((x > y or z in [5, 6]) and not (x == 20)) #False`
2. `username = "admin"`
`roles = ["user", "editor", "admin"]`
`access_granted = username in roles and username != "guest"`
`print(access_granted) #True`
3. `marks = 85`

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    status = "Pass" if marks >= 40 else "Fail"
    print(status == "Pass" and marks in range(80, 91))           #True
4. items = ["pen", "book", "bottle"]
    available = "bottle" in items
    stock = 10
    stock -= 1
    print(available and stock != 0)                             #True
5. x = 5
    y = 5
    z = 0
    x *= 2
    print(x == 10 and (y in [1, 5]) or not z)                 #True
6. age = 25
    id_card = True
    is_verified = False
    is_verified = age >= 18 and id_card
    print(is_verified and not (age < 18))                     #True
7. login = True
    admin = False
    privileges = ["read", "write"]
    print(("delete" not in privileges) and (login or admin))  #True
8. x = 8
    y = 12
    x %= 5
    y //= 3
    print(x != y and (x not in [0, 1]))                      #True
9. students = ["Asha", "Ravi", "Mira"]
    marks = {"Asha": 78, "Ravi": 65}
    print("Mira" in students and students[0] in marks)      #True
10. x = 100
    y = 50
    x -= 50
    y += 10
    print((x == y) or (x > y and "Python" not in ["Java", "C++"])) #False
1. a = 10
    b = 20
    print(a != b)      #True
2. x = 30
    y = 30
    print(x == y)      #True
3. age = 18
    print(age >= 18)    #True
4. a = 50

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    b = 100
    print(a < b) # True
5. score = 75
    print(score >= 60 and score <= 90) #True

1. a = True
    b = False
    print(a and b) #False
2. x = 10
    y = 20
    print(x < 15 or y > 25) #True
3. flag = False
    print(not flag) #True
4. marks = 70
    print(marks > 60 and marks < 80) #True
5. has_ticket = True
    is_vip = False
    print(has_ticket or is_vip) #True

1. x = 5
    x += 2
    print(x) # 7
2. count = 10
    count -= 3
    print(count) #7
3. value = 6
    value *= 3
    print(value) #18
4. num = 40
    num //= 4
    print(num) #10
5. val = 9
    val %= 2
    print(val) #1

1. colors = ["red", "green", "blue"]
    print("red" in colors) #True
2. text = "hello world"
    print("world" in text) #True
3. students = ["Tom", "Jerry"]
    print("Spike" not in students) #True
4. chars = "abcdef"
    print("g" not in chars) #True
5. numbers = [1, 2, 3, 4, 5]

```

6. `print(3 in numbers)` `#True`