

_1type/_2bool.py

```
1 # --- Funciones booleanas ---
2 es_instance = isinstance(10, int)      # True
3 es_subclass = issubclass(bool, int)    # True
4
5 # --- == != > < >= <=
6 # --- is / is not      in / not in
7 ('1 is 1', 1 is 1)                # True
8 ('1 is not 2', 1 is not 2)          # True
9 ('A in Asabeneh', 'A' in 'Asabeneh') # True
10 ('B in Asabeneh', 'B' in 'Asabeneh') # False
11 ('a in an:', 'a' not in 'an')        # False
12
13 # --- and or not ---
14 (not 3 > 2)                        # False - cause 3 > 2 is true, then not True gives False
15 (not True)                         # False - Negation, the not operator turns true to false
16 (not False)                        # True
17 (not not True)                     # True
18 (not not False)                    # False
19
20 # --- Comparación booleana ---
21 x = ""                             # False
22 y = 0                               # False
23 x = 5                               # True
24 x = None                           # False
25 x = []                             # False
26 x = [1, 2, 3] #True
27 print(True == 1)                   # True
28 print(False == 0)                  # True
29 print(True + True)                 # 2
30 print(False + True)                # 1
31 and_operacion = x and y            # False
32 or_operacion = x or y              # True
33 not_operacion = not x              # False
34 class CustomObject:               #False
35     def __bool__(self):
36         return False
37
38 # --- Booleanos y operaciones bit a bit ---
39 bitwise_and = True & False          # False
40 bitwise_or = True | False           # True
41 bitwise_xor = True ^ False          # True
42 bitwise_not = not True              # False
43
44 # --- Ejemplo práctico: función de validación ---
45 def es_mayor_de_edad(edad):
46     return edad >= 18
47
48 print(es_mayor_de_edad(20))         # True
49 print(es_mayor_de_edad(16))         # False
50
```