



E: expressions

Recap quiz

1

```
a = input("give a number")
# user inputs 10
b = input("give a number")
# user inputs 10

print(a+b)
```

What does it print?

2

```
a = input("give a number")
# user inputs 10
b = input("give a number")
# user inputs 10

print(int(a)+b)
```

What does it print?

Solutions

```
# 1
a = input("give a number")
# user inputs 10
b = input("give a number")
# user inputs 10
print(a+b)
```

What does it print?

1010

```
# 2
a = input("give a number")
# user inputs 10
b = input("give a number")
# user inputs 10
print(int(a)+b)
```

What does it print?

ERROR!

TypeError: unsupported
operand type(s) for +:
'int' and 'str'

Logical operators

- Equal
 - `10 == 10` -> This expression is True!
 - `if (a==10) ...` If the condition is True...
 - `a=10` is a value assignment not a condition
- Not equal
 - `5!=5` -> This expression is False!
 - `if (a!=0): print(10/a)`

```
if (temp>30) and (distance_to_beach<50):  
    print("Let's go to the beach!")
```

```
if(raining==True) or (day=="Sunday"):  
    tea==True
```

Booleans

- A **Boolean** expression (or logical expression) evaluates to one of two states true or false.
- Python provides the Boolean type that can be either set to **False** or **True**.

```
x = int(input("Give a num: "))
enterTheIf= False
if(x == 10):
    print("This is true!")
    enterTheIf = True
print(enterTheIf)
```

Another example!

```
a = int(input("Give a num: "))
isZero = False
if(a==0):
    isZero = True
if (isZero == False):
    print(100/a)
```

Awkward run 1! What's wrong?

```
[11] age = int(input("Enter your age "))
```

```
    if (age < 10):  
        | print("You pay 5")  
    elif (age >10 or age< 60):  
        | print("You pay 10")  
    elif(age>60):  
        | print("You pay 4")
```

Enter your age 70

You pay 10

Do not post your solution in the chat yet...
Wait for the timer to complete...

Awkward run 2! What's wrong?

```
[12] age = int(input("Enter your age "))

    if (age < 10):
    | print("You pay 5")
    elif (age >10 or age< 60):
    | print("You pay 10")
    elif(age>60):
    | print("You pay 4")
```

```
Enter your age 10
You pay 10
```

Do not post your solution in the chat yet...
Wait for the timer to complete...

Solution

```
age = int(input("Enter your age "))
```

```
if (age <= 10):  
    print("You pay 5")  
elif (age >10 and age<= 60):  
    print("You pay 10")  
elif(age>60):  
    print("You pay 4")
```