

CS 112 Practice Questions

True or False: given an if-elif-elif-elif structure without an else branch, it is possible that zero branches get executed

True - what if all conditionals eval to False?

True or False: The two blocks of code behave identically when given the same inputs.

①
Choice = input("color?")
If choice == "red":
 Print("stop!")
Elif choice == "green":
 Print("go")
Else:
 Print("hmm")

②
choice = input("color?")
if choice == "red"
 print("stop!")
else:
 if choice == "green":
 print('go')
 else:
 Print("hmm")

	1	2
Red	✓	✓
Green	✓	✓
Black	✓	✓

What is printed by the following code?

X = 3
Y = x+2
X = 4
Print(y)

X = 4
y = 5
prints out 5

What is the value of ans after the following assignment?

Ans = str(5*2)

5 * 2 = 10
Ans = "10"

Suppose we accept a users input and save it to a variable choice. How do we check whether the user has typed in the string "average"?

if input == "average":

Give example inputs to x and y that successfully avoid all printing when running the code:

X = int(input("x value"))
Y = int(input("y value"))
If x%2 == 0:
 If y==x:
 Print("A")
 Else:
 Print("B")
Else:
 If y > x:
 Print("c")
 Elif y < x:
 Print("D")

X = 7
y = 7

Any values for x and y (as long they are the same) and x%2 must be Not equal to 0

What is printed by the following:

$"ox" * 3 == "0x" + "0x" + "0x" \rightarrow "0x0x0x"$

The truth table of x or y or z lists all possible combinations of three Booleans x and y and z. How many should be evaluated to be True?

x	y	z	x y z
0	0	0	0
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	1
1	1	1	1

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What is printed by the following code?

```
X = 5
Ans = 0
If x < 10:
    Ans += 1
Elif x > 100:
    Ans += 20
Else:
    Ans += 300
Print(ans)
```

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What is printed by the following code?

```
X = 5
Ans = 0
If x < 10:
    Ans += 1
If x > 10:
    Ans += 20
Else:
    Ans += 300
Print(ans)
```

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How many arguments are provided to each print call?

- 3 Print(a, "2,3", [4,4,4,4])
- 1 Print("I have " + str(amount) + "apples for \$" + str(price) + " each.")
- 4 Print("Albacore", [2,3,4], "ready" + "set", "have some more!")

Implement the function control. Assume day is an integer encoding the day of a week as 0=Sun, 1=Mon, 2=Tue, ..., 6=Sat; and is_vacation is a Boolean indicating whether the family is in vacation or not. Return an integer as the desired temperature to control the air conditioner in the summer according to the following rules:

The desired temperature is 70 degrees for weekends and 80 degrees for weekdays

If the family is in vacation, then the temperature is 85 degrees for both weekends and weekdays

Examples:

control(0, False)	->	70
control(3, False)	->	80
control(6, True)	->	85

```
def control(day, is_vacation):
```

```
    if day == 0 or day == 6 and is_vacation == False:
```

```
        return 70
```

```
    elif day > 1 and day <= 5 and is_vacation == False:
```

```
        return 80
```

```
    else:
```

```
        return 85
```

what is given:

day {
0 = Sun
1 = Monday
2 = Tuesday
3 = Wednesday
4 = Thursday
5 = Friday
6 = Saturday

is_vacation - Boolean

Temp @ 70 - Weekends

Temp @ 80 - Weekdays

Temp @ 85 - is_vacation = True