

You can find multiple choice review questions in D2L under: **Assessments->Quizzes**

For all questions, unless otherwise specified assume that there are no syntax errors in any programs or program fragments.

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### **Short answer 1 (code writing):**

JT's hint: Before looking at the answer make a real attempt at providing an answer. If you are drawing a blank then it indicates that you need to study the material from lecture as well as looking at the in class notes that you should be taking as you are following along in class. You will get far more out of the process if you try it out as if you were writing an actual exam question rather than just directly looking at the answer.

```
if (age < MIN_AGE):
    print("Age of %d is below the min. value of %d" %(age,MIN_AGE))
elif (age > MAX_AGE):
    print("Age of %d is above the max. value of %d" %(age,MAX_AGE))
else:
    print("Age is within the valid range")
```

## Short answer 2 (code writing):

JT's hint: Before looking at the answer make a real attempt at providing an answer. If you are drawing a blank then it indicates that you need to study the material from lecture as well as looking at the in class notes that you should be taking as you are following along in class. You will get far more out of the process if you try it out as if you were writing an actual exam question rather than just directly looking at the answer.

**#Solution 1:** using if-in operator. This approach is not available with most languages, this is a python

```
#specific shortcut
print("Solution 1")
if selection not in ("n", "N", "o", "O", "p", "P", "s", "S", "q",
"Q"):
    print("Please enter one of 'n', 'N', 'o', 'O', 'p', 'P', 's',
'S', 'q','Q'")
```

**#Solution 2:** manually checking that it's not the case that any of the above possible cases apply.

```
#Without using an if,elif structure instead of multiple IFs with
most languages this is the only
#possible solution.
print("Solution 2")
if ((selection != "n") and (selection != "N") and \
    (selection != "o") and (selection != "O") and \
    (selection != "p") and (selection != "P") and \
    (selection != "s") and (selection != "S") and \
    (selection != "q") and (selection != "Q")
):
    print("Please enter one of 'n', 'N', 'o', 'O', 'p', 'P', 's',
'S', 'q','Q'")
```

### **Short answer 3 (code trace):**

JT's hint: Before looking at the answer make a real attempt at providing an answer. If you are drawing a blank then it indicates that you need to study the material from lecture as well as looking at the in class notes that you should be taking as you are following along in class. You will get far more out of the process if you try it out as if you were writing an actual exam question rather than just directly looking at the answer.

Trace 1  
135  
Trace 2  
23