

Quiz #2

1. (1 point) List 3 relational operators. *Note: these are also called comparison operators.*

<  
>  
=

2. (1 point) List 3 logical operators.

and, or, not

3. (2 points) BYOB Scratch does not have constructs such as " $\leq$ ". Rewrite the following in a manner that would be equivalent using only the constructs provided in BYOB Scratch.

$x \leq 10$

solution 1:  $x < 10$  or  $x = 10$

solution 2:  $x < 11$

solution 3: not  $x > 10$

4. (1 point) Fill in the following truth table.

P	Q	P or Q
True	True	True
True	False	True
False	True	True
False	False	False

5. (5 points) Trace the following pseudocode and write the output of the program based on the inputs in part a and then again with the inputs in part b. Hint: text can be sorted like numbers. If a word is less than another word, that means it comes before the second word alphabetically. Ex: "apple" is less than "pear" because "apple" comes first in the alphabet.

```
ask user, "Please enter a name."  
get name1  
ask user, "Please enter a second name."  
get name2  
ask user, "Please enter a third name."  
get name3  
  
print "The names in sorted order are: "  
  
if name1 < name2 then  
    print name1  
else  
    print name2  
if name2 < name3 then  
    print name2  
else  
    print name3  
if name1 < name3 then  
    print name1  
else  
    print name3
```

- a. name1 = banana  
name2 = mango  
name3 = apple

The names in sorted order are:

banana  
apple  
apple

- b. name1 = zucchini  
name2 = carrot  
name3 = corn

The names in sorted order are:

carrot  
carrot  
corn

- c. Does the program work as intended?

The program is attempting to print the names in sorted order. No, the program does not work as intended.