

CS21 PRACTICE QUIZ 2

1. For each of the following expressions, show the value that will be returned by the Python interpreter and give the type of the resulting value.

	VALUE	TYPE
5 / 3		
range(0,10,3)		
3 != 4		
range(len("puppy"))		
chr(ord('B')+1)		
'2' + '3'		
2 + 3.0		
1 == 2 or 1 < 2		

2. What is the output of the following program?

```
def main():
    word = "boz"
    result = ""
    for letter in word:
        result = result + chr(ord(letter) - 1)
    print result
```

3. Finish the code for the program below so that it produces the following pattern of some size, n, entered by the user (in this example, n is 4). Recall that you can use an asterisk (*) to repeat a particular string multiple times. For example "baa"*3 returns "baabaabaa".

```
$ $ $ $
  $ $ $
    $ $
      $
```

```
def main():
    print "This program prints out a pattern of dollar signs."
    n = input("Enter a value for the size of the pattern: ")
```

4. Consider the program below which is intended to determine whether a given number is negative, zero, or positive.

```
def main():
    n=input("Enter a number: ")
    if n < 0:
        print "negative"
    if n > 0:
        print "positive"
    else:
        print "zero"
```

- (a) What will be printed if the user enters 5 at the prompt?
(b) What will be printed if the user enters -5 at the prompt?
(c) What will be printed if the user enters 0 at the prompt?
(d) Does the program give the desired result?
If not, write a corrected version below.
5. A person is eligible to be a US senator if he or she is at least 30 years old and has been a citizen for at least 9 years. Write a program that takes a person's age and years of citizenship as input and returns their eligibility for the Senate. For example:

```
$ python senate.py
Enter your age: 30
Enter years US citizen: 5
```

```
Eligibility for the Senate:
You have not been a US citizen long enough.
```

```
$ python senate.py
Enter your age: 30
Enter years US citizen: 10
```

```
Eligibility for the Senate:
You are eligible!
```

```
$ python senate.py
Enter your age: 29
Enter years US citizen: 10
```

```
Eligibility for the Senate:
You are too young.
```