

TEST 3

Your Name (please PRINT): _____

=====INSTRUCTIONS=====

- Fill in the above items.
- There is a total of 5 problems, for a maximum possible total value of 60 points. **Make sure you have all 6 test pages (this cover page + 5 test pages).** You are responsible to check that your test booklet has all 6 pages. Alert a proctor if your copy is missing any pages.
- **Show all your work.** Only minimal credit will be given for answers without supporting work.
- **Write your answer in the box** at the bottom of pages 2-6.
- **Use the back of test pages if additional space is needed,** and for scratch paper.
- You may use scientific or standard calculators. No graphing calculators are allowed.

Do not write below this line

Pb. #	Max Points	Your Score
1	6	
2	14	
3	10	
4	10	
5	10	
6	10	
Total	(60)	

1. Consider the following Python code:

```
def factorial(x):
    c= 1
    s = 1
    while c <= int(x):
        s = s*c
        if c == 1:
            print (c)
        else:
            print ("*", c)
        c = c+1
n = input(Please enter an upper bound: )
sum = factorial(n)
print(sum)
```

(a) Describe what each line of this code does.

(b) If you input a value of 6, what will the program calculate?

2. (a) Write a Python line which establishes a variable

`my_var`

The value of the variable should be my response to the question “How many miles do you walk per day?”

(b) Now write a Python code which says “You’re healthy’ if my response was 4 or more miles, says “Not bad” if my response was 2-4 miles, and “You need to walk more!” if you responded less than 2 miles.

3. Run a written simulation of the following Python code.

```
my_list = list()
s = 0
while s < 4:
x=input('Who is the number best singer on Earth')
    my_list.append(x)
    s = s + 1
print('Your favorite singers are:' my_list)
```

4. Draw an example (indicating size differences and colors) of the following webpage:

```
<!DOCTYPE HTML>
<html>
<head>
<title> Awesome Webpage!</title>
<style>
h1{color : red; background-color: blue}
body{background-color:green}
h2{color : black; background-color : yellow}
</head>
  <body>
    <h1 style="text-align:center">Web Page</h1>
    <p>This is a paragraph.</p>
    <p>This is another paragraph.</p>
    <hr/>

    <ul>
      <li>Car</li>
      <li>Boat</li>
      <li>Fish</li>
    </ul>
    <ol>
      <li>Cat</li>
      <li>Dog</li>
      <li>Train</li>
    </ol>

    <a href="http://www.uwsuper.edu">University of Wisconsin-Superior</a>
  </body>
</html>
```

5. The following python code should print out the sum of the cubes of numbers. It does not work. Find the error and fix it:

```
x = int(input('How many cubes do you want to add?'))

s = 1
z=0

while s <= x:
    z = z+y*y*y
print (z)
```