

Complete the following without using a computer.

1. If $x = 2.781828987$, what does the following statement print?

```
print('The value of x is {:.3f}'.format(x))
```

2. What does the following code print when it is complete?

```
p = 1
for i in range(5):
    p = p*(i+1)

print(p)
print('The value of x is \ {:.3f}\')
```

3. What is s after this code has run?

```
mylist = [1,2,3,4,5,6,7]
s = 0
for k in mylist:
    if k%2 == 1:
        s = s+k
print(s)
```

4. What is $5 // 2$?

5. What does this code print to the screen?

```
def f(x,y):
    fval = x**2+3*y
    return fval

g = f(3,2)
print(g)
```

6. Suppose the following is all the code that is written a program. What does it print to screen when it is run?

```
def hello():
    print('hello')
```

7. Write a function that takes two arguments and returns 1 if the first argument is greater than the second,-1 if the first is less than the second, and 0 if they are equal.

8. What is the final value of x after this code finishes?

```
x = 0
for i in range(3):
    for j in range(3):
        if i*j > 2:
            x = x+3
        elif i*j == 2:
            x = x+2
        else:
            x = x-1
    x = x-1
print(x)
```