1. Provide the correct code in the box so that the following recursive function will return True if all the items in a list are identical and False otherwise [1 point]

```python
def same(a_list):
    if len(a_list) <= 1:
        return True
    return (a_list[0] == a_list[1]) and same(a_list[1])
```

2. The following function is invoked as mystery("123"). In the boxes, write the value of the parameter x each time mystery is invoked, in the order in which Python executes the statements. The first entry is already completed. [3 points]

```python
def mystery(x):
    y = len(x)
    if y <= 1:
        return y
    a = mystery(x[1:])
    b = mystery(x[1:])
    return a - b
```

3. Draw the shape produced by the following code, assuming that the turtle starts at the origin, (0, 0), and pointing to the right. Label the coordinates of the turtle after this code executes. [3 points]

```python
from turtle import *
def mystery(x):
    if x < 10:
        dot(x)
    else:
        forward(x/2)
        backward(x)
        forward(x/2)
        left(45)
        mystery(x/2)
mystery(40)
```