QUESTION 1

def f(x, y):
    if (x == 0):
        # draw stack at this point
        return 0
    else:
        return y + f(x-1, y)

def main():
    z = f(6, 4)
    print(z)

main()

1. To the right of the program code (in the area beneath DRAW STACK HERE), draw the stack as it appears when the program reaches line 3.

2. What is the base case of the function f?

3. What is the recursive case of the function f?

4. Below, give the output that would be produced by running the entire program:
QUESTION 2

```python
def g(lst):
    s = len(lst)
    if (s > 0):
        print(lst[s-1])
        g(lst[:-1])
    else:
        # draw stack at this point
        print("Done!")

def main():
    numbers = [4, 10, 29, 31]
    g(numbers)
main()
```

1. To the right of the program code (in the area beneath DRAW STACK HERE), draw the stack as it appears when the program reaches line 7.

2. What is the base case of the function g?

3. What is the recursive case of the function g?

4. Below, give the output that would be produced by running the entire program: