Consider the following program:

```python
def clamp(val, lo, hi):
    print("in function...")
    #scope Q3
    if val < lo:
        val = lo
    if val > hi:
        val = hi
    #stack Q1
    return val

def main():
a = 17
    print("in main...")
    result = clamp(a, 0, 10)
    #scope Q2
    print("a: %d" % (a))
    print("Result: %d" % (result))

main()
```

1. Draw the stack as it appears when the program reaches the line #stack Q1.

2. For the line #scope Q2, what variables are currently in scope? That is, what variables can you refer to without getting a runtime error?

3. For the line #scope Q3, what variables are currently in scope?

4. What output is produced by the whole program?