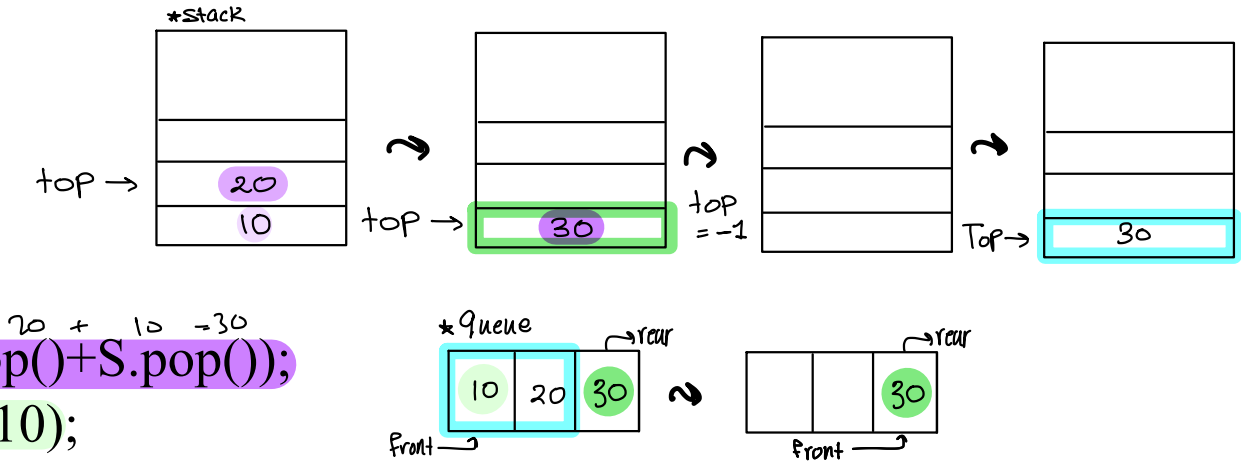


Exercise

Suppose we have a stack **S** and a queue **Q**. What are final values in the stack **S** and in the **Q** after the following operations? Show contents of both **S** and **Q** at each step indicated by the line.

```

Stack S;
Queue Q;
int x, y;
S.push(10);
S.push(20);
S.push(S.pop()+S.pop());
Q.enqueue(10);
Q.enqueue(20);
Q.enqueue(S.pop());
S.push(Q.dequeue()+Q.dequeue());
    
```



$$10 + 20 = 30$$

Exercise

Suppose we have an integer-valued stack S and a queue Q. Draw the contents of both S and Q at each step indicated by the line. Be sure to identify which end is the top of S and the front of Q.

