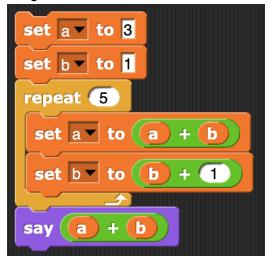
## **Trace Tables & Pseudocode - SOLUTIONS**

**1.** Here is an algorithm written in Snap; assume **a** and **b** are global variables.

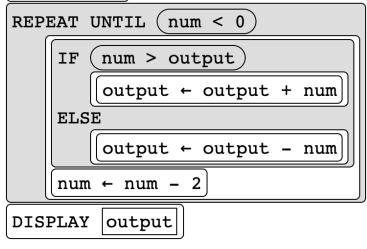


Iteration	а	b		
0	3	1		
1	4	2		
2	6	3		
3	9	4		
4	13	5		
5	18	6		

- **a.** Complete the trace table to help you determine what the sprite will say at the end.
- **b.** What will the sprite say?

**24** (18+6)

**2.** Here is an algorithm written in AP exam pseudocode:



Complete the trace table to help you determine what will be displayed when this algorithm is executed:

num	output	
10	5	
8	15	
6	7	
4	1	
2	5	
0	3	
-2	3	

What gets displayed?

3

## **3.** Here is an algorithm written in AP exam pseudocode:

```
numList \( [8, 7, 9, 5] \)
len \( \sum \) LENGTH(numList)
count \( \sum \) 1
sum \( \sum \) 0

REPEAT len TIMES
{
   sum \( \sum \) sum \( + \) numList[count]
   count \( \sum \) count \( + \) 1
}

DISPLAY(sum \( + \) count)
```

Complete the trace table to help you determine what will be displayed when this algorithm is executed (make sure to identify what variables (or lists!) you're keeping track of):

numList	len	count	sum	Iteration #
[8, 7, 9, 5]	4	1	0	
		2	8	1
		3	15	2
		4	24	3
		5	29	4

What gets displayed?

**34** (29 + 5)