Part 1: Tracing

1.

Line#	readings	а	i	temp	j	b	element	If Conditi on (T/F)	Loop Condition (T/F)	Output
1	2,5,3,1									
2										
4		2,5,3,1								
5			1						Т	
6				5						
7					0					
8									Т	
9								F		
12					-1					
8									F	
5			2						Т	
6				3						
7					1					
8									Т	
9								Т		
10	2,5,5,1	2,5,5,1								
11	2,3,5,1	2,3,5,1								
12					0					
8									Т	
9								F		

10					4					
12					-1					
8									F	
5			3						Т	
6				1						
7					2					
8									Т	
9								Т		
10	2,3,5,5	2,3,5,5								
11	2,3,1,5	2,3,1,5								
12					1					
8									Т	
9								Т		
10	2,3,3,5	2,3,3,5								
11	2,1,3,5	2,1,3,5								
12					0					
8									Т	
9								Т		
10	2,2,3,5	2,2,3,5								
11	1,2,3,5	1,2,3,5								
12					-1					
8									F	
5			4						F	
3										
13						1,2,3,5				
14							1			
15										1

14				2		
15						2
14				3		
15						3
14				5		
15						5

2.

Line #	i	j	k	Loop Condition (Line 1) (T/F)	Loop Condition (Line 2) (T/F)	Loop Condition (Line 3) (T/F)	Loop Condition (Line 4) (T/F)	Output
1	0			Т				
2		0			Т			
3						F		
2		1						
3						Т		
4			0				Т	
5								"Aye Aye"
4			1				Т	
5								Is a Lemur
4			2				Т	
5								Found on the eastern coast of Madagasca r
4			3				F	

6								
2		2			Т			
3						F		
2		3			F			
1	1			Т				
2		0			Т			
3						F		
2		1						
3						F		
2		2			Т			
3						Т		
4			0				Т	
5								Wombat
4			1				Т	
5								Is a medium sized marsupial
4			2				Т	
5								Found only in australia and its surrounding islands
4			3				F	
6								
2		3			F			
1	2			Т				

2		0			Т			
3						Т		
4			0				Т	
5								Zebu
4			1				Т	
5								Is a species of cattle
4			2				Т	
5								Found in the jungles of south asia
4			3				F	
6								
2		1			Т			
3						F		
2		2			Т			
3						F		
2		3			F			
1	3			F				

Line #	animals	i	Loop Condition (T/F)	animal	Output
1	Echidnas				
2	Echidnas, Ferret				
3	Echidnas, Ferret, Gar				
4	Echidnas, Ferret, Gar, Impala				
5	Echidnas, Ferret, Gar, Impala, Kudu				
6					Original Arraylist
7		0	Т		
8					Echidnas
7		1	Т		
8					Ferret
7		2	Т		
8					Gar
7		3	Т		
8					Impala
7		4	Т		
8					Kudu
7		5	F		
9	Quokka,				

		 	1	
	Echidnas, Ferret, Gar, Impala, Kudu			
10	Quokka, Echidnas, Pika, Ferret, Gar, Impala, Kudu			
11	Quokka, Numbat, Pika, Ferret, Gar, Impala, Kudu			
12	Quokka, Numbat, Pika, Ferret, Impala, Kudu			
13				Modified Arraylist:
14			Quokka	
15				Quokka
14			Numbat	
15				Numbat
14		 	Pika	
15				Pika
14			Ferret	
15				Ferret
14			Impala	
15				Impala
14			Kudu	
15				Kudu