Exercise 1

Complete exercise 1 from Chapter 7.9 of Think Java. Either type up your answer in a file named answer.txt or write it by hand and scan it into answer.pdf. Add the file to a folder named pre03 in the assignments repo and push to GitHub.

1.

Iteration (index)	i	n
		10
0	10	10
1	5	10
2	6	10
3	3	10
4	4	10
5	2	10
-	end	

2. **What is the output of this program?**

OUTPUT
10
5
6
3
4
2

3. **Can you prove that this loop terminates for any positive value of `n`?**

Yes; the value will always be brought back to a power of 2, and therefore can be brought back to 1, terminating the loop. The output produced from odd numbers, by nature of the expressions used, will always transform it to an even number and then decrease the value. These two constant trends help prove that this will terminate for any positive value of n.