

For each problem, create a project using the Console Application template. Do not use any built-in function other than the Console methods. Do not use arrays or strings. These problems only require integers and control statements (iteration and selection statements).

A. Warmup (no loops)

Create an application that lets us **enter five integers**. Without using a loop, the app will **count** and **display** the number of sets, whose last number is at least the square of the first number in the set. That is, the set will be restarted when that condition has been met.

For example, if you've entered 6, 20, 36, 2, 4, the app will count **2** sets because

6	20	40	2	4
6 is the first number.	Ignored because 20 is smaller than 6^2 .	40 is the last number since 40 is at least 6^2 .	The set is restarted—2 is the first number.	4 is the last number because $4 = 2^2$.
Count = 0		Count = 1		Count = 2

Use this warmup problem to understand the pattern in **Problem B**.

B. Loop

Create an application that lets us enter a bunch of positive integers until we have entered a zero or a negative number. The app will **count** and **display** the number of integer sets, whose last value is at least the square of the **smallest** value entered so far in the set. That is, when the last value satisfying that condition has been identified, we will restart a new set of numbers.

Input	Min	Last	Count	Note
3	6	6	0	First Number
8	6	8	0	
40	6	40	1	$40 \geq 6^2$.
4	4	—	1	Set is restarted.
2	2	—	1	Smallest number
3	2	3	1	
8	2	8	2	$8 \geq 2^2$.
63	63	63	2	Set is restarted.
20	20	—	3	Smallest number
3	3	—	3	Smallest number
4	3	4	3	
6	3	6	3	
3	3	3	3	
10	3	10	4	$10 \geq 3^2$.
1	1	—	4	Set is restarted
1	1	1	5	$1 \geq 1^2$.
3	3	3	5	Set is restarted
5	3	5	5	
0			5	App is terminated.