Problem C
Pyramid Number

Input: Standard Input
Output: Standard Output

A group of archaeologists have come across a new kind of number pattern while analyzing the hieroglyphs patterns in ‘The not so great pyramid’. They have decided to call these numbers ‘Pyramid numbers’.

A number **n** is called a Pyramid number if we can partition **n** into **k** positive integers $\mathbf{x_i}$ (1<=i<=k) such that $\sum_{i=1}^{k} \frac{1}{x_i}$ = 1. For example, $1 = \frac{1}{2} + \frac{1}{2}$
So, 4 (2 + 2) is a Pyramid number.

A number **n** is called a Strictly Pyramid number if we can partition **n** into **k** distinct positive integers $\mathbf{x_i}$ ($1 \le i \le k$) such that $\sum_{i=1}^{k} \frac{1}{x_i}$ = 1. For example,
$1 = \frac{1}{2} + \frac{1}{3} + \frac{1}{6}$
Here, 11 (2 + 3 + 6) is Strictly Pyramid whereas in the above example, 4 is Pyramid but not Strictly Pyramid.

Given two positive integers **a** & **b**, find the number of Strictly Pyramid numbers between **a** & **b** (inclusive).

Input
The first line of the input file will contain an integer **T** (T<=100), the number of test cases. Each of the following **T** lines will be consisting of 2 integers **a** & **b** ($1 \le$ **a**, **b** $\le$ 1000000).

Output
For each test case, print an integer which is the number of Strictly Pyramid numbers between **a** & **b** (inclusive).

Sample Input	Output for Sample Input
5	1
1 10	2
1 11	53
1 100	8
70 80	11
110 120	

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