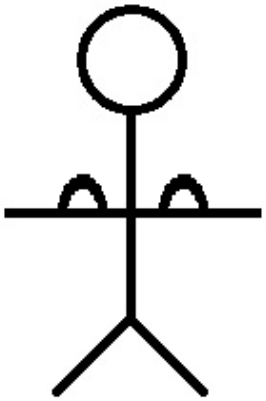
Problem D: Building Biceps



You're the fitness trainer of a world famous bodybuilder, capable of lifting incredible amounts. Today you start on your new training program to awe the world: the bodybuilder will curl 190.509kg weights in **each hand**. Unbelievable strength!

At the start of every day, you're going to decide how many reps to train. Your bodybuilder begins with 100 **maximum energy** and also 100 **current energy**. In general, doing reps is going to decrease the bodybuilder's current energy, but make him stronger and capable of doing more reps in the future. Specifically, every time that the bodybuilder performs a curl, he gains `+1` to his **maximum energy**. At the beginning of each day, the first curl costs him 10 **current energy**, the second costs 13, the third costs 16, and so forth in this increasing fashion (+3 cost to each curl). Your bodybuilder may never have negative **current energy**.

Instead of doing curls, you may dedicate the entire day to resting, which adds half of the bodybuilder's **maximum energy** (rounded down) to his **current energy**.

Your goal is to perform a certain number of reps in a single day as soon as you can. How many days will it take you?

Input Specification:

The input begins with an integer T, the number of testcases. Each testcase consists of a non-negative integer X, the number of curls you would like the bodybuilder to perform. Since nobody likes a performance that's too long, X will never exceed 69.

Output Specification:

For each testcase, output a single number: the earliest day on which you can perform X reps.

Sample Input:

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1
6
```

Sample Output:

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4
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On the first day, the bodybuilder should perform 5 *reps. Now he will rest for two days. On the fourth day, he can perform* 6 *reps.*