

6405 The Large Family

The “Occupy the Kitchen” movement by the **five** children of the Large family, has taken Mr. and Mrs. Large by surprise. The children raised banners demanding the equal distribution of mangos after a large number of mangos went missing from the fridge overnight. They presented their demands as the family food constitution.

The Large Family Food Constitution

- A mango may only be divided into two halves.
- Children shall receive equal amounts of mangos.
- Mum and Dad shall receive equal amounts of mangos.
- Allocation may differ by no more than half a mango amongst all family members.
- Each family member must receive the maximum amount possible without violating the above constitutional items.
- Extra amounts of mangos that result in the violation of the above constitutional items shall go to the goat. Mangos going to the goat must be kept to a minimum.

Mr. and Mrs Large have agreed to the constitution on the condition that software is developed to compute the correct allocation of mangos. Your task is to write a program that allocates mangos to each family member and the goat.

Input

The input consists of many test cases. The description for each test case consists of an integer, $0 \leq G \leq 300$, on a line by itself that represents the total number of mangos to be divided.

A line with a single zero indicates the end of data and should not be processed.

Output

The output consists of a single line, for each test case, which contains four values separated by single spaces. The first is the number of mangos for the goat, the second is the number of mangos for dad, the third is the number of mangos for mum and the fourth is the number of mangos for each child. Each value is written as a decimal with a single digit after the decimal point.

Sample Input

```
41
0
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Sample Output

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0.0 5.5 5.5 6.0
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