Deal or No Deal

Description

Quite a few years ago, NBC had a hit game show called "Deal or No Deal".

In our version of this game, there are 10 possible dollar amounts hidden inside 10 briefcases:

1	2	3	4	5	6	7	8	9	10
100	500	1000	5000	10000	25000	50000	100000	500000	1000000

Before the game starts the contestant selects one briefcase as his or hers to possibly keep. During the game, some of the ten possible dollar amounts have been eliminated from the game because the contestant has selected some of the other briefcases and revealed the amounts inside.

At some point, the contestant will stop opening briefcases, and a "Banker" will offer the contestant cash in exchange for what might be contained in his/her chosen briefcase. Then the contestant is asked: "Deal or No Deal?".

Write a program that helps a player decide if he/she should choose "deal" or "no deal", by calculating the average of the remaining amounts (i.e., all unopened briefcases, including his/her "own" briefcase), and comparing that value to the "Banker's" offer. If the Banker's offer is higher than the average, then the player should "deal" otherwise, the player should say "no deal".

Input Specification

The first line of input will be an integer n $(0 \leq n \leq 10)$. This indicates how many briefcases have been opened.

The next prompts collect the numbers of the briefcases that have been opened on each turn in the game. You may assume that no duplicate case numbers are entered. No error checking of this input is required.

The final prompt collects the dollar amount of the banker's offer. You may assume the Banker's offer is an integer greater than 10. No error checking of this input is required.

Output Specification

The program will print out one of two statements: "deal" or "no deal".

Example input output sessions are on the next page.

Sample Input/Output Session #1 (output in **bold** text, input in `regular` text)

How many briefcases have been opened?
2
Briefcase opened, in turn 1, was:
3
Briefcase opened, in turn 2, was:
8
What was the banker's offer?
198000
No deal.