Problem M
MEOW

Some researchers have found cats have a language, this language is very well known by most cat lovers, all cats do this sound that is heard as a 'meow', this was some guess by cat owners, until today.

Researchers found that cats communicate using sounds similar to these four letters 'm', 'e', 'o', and 'w'. And have found that in cat language these sounds appear always in the same order, this is, if the cat will do an 'm' sound it will always appear before, 'e', 'o', 'w'. Some valid words in the cats language are 'mmmmeow', 'eow', 'e', 'w', '' (silence), while 'wo', 'em', 'meeeewwoo' are invalid.

The research has also discovered that any string in the cats language always have between l_m and u_m sounds 'm', l_e and u_e sounds 'e', l_o and u_o sounds 'o', and l_w and u_w sounds 'w', it seems then that cats have much more words that we tought!.

We always thought Baker was a very talented cat, so we brought him to some examinations regarding the cats languages, researchers (and us) were shocked when we heard Baker did a sound 'owwwwmeeeeow', further investigation on baker showed that he is able to make much more words as other cats, it was found that if we take two words from the traditional cats language, Baker can make it sound as a single word.

Researchers are very busy studying the traditional cats language, but we want to study Baker's language and know how many different words Baker can make. Can you write a program that given the restrictions in the traditional cats language calculates the number of different words Baker can make?

Input

The first line of input contains a single integer number T ($1 \leq T \leq 100$) representing the number of test cases. T test cases follow, each test case consists of a single line with 8 integer numbers separated by a space, representing the values for l_m, u_m, l_e, u_e, l_o, u_o, l_w and u_w respectively. ($0 \leq l_m \leq u_m \leq 100$, $0 \leq l_e \leq u_e \leq 100$, $0 \leq l_o \leq u_o \leq 100$, and $0 \leq l_w \leq u_w \leq 100$)

Output

For each test case in the input print a line with a single integer, representing the number of different words Baker can make based on the traditional cats language restrictions.

Input example 1	**Output example 1**
3 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0 0	1 3 12