

Sir and Chess1

After a lot of practice throughout the day, Sir jadeja is tired now and he is going to play chess for refreshment. While playing chess , a problem came into his mind.He wants to know the total numbers of ways a king can be placed on the chess board so that it cannot be attacked by the two knights already placed on the board.Help Sir jadeja in solving the problem.

Input--

The first line of the input contains integer T denoting the number of test cases.First line of each test case contains an integer N denoting the size of board.Second line contains four integers x_1, y_1, x_2, y_2 seperated by spaces denoting the position of the two knights. x_1, y_1 is the position of the first knight and x_2, y_2 is the position of the second.

Chess board will be of size $N \times N$. Assume top left position as 1,1 and bottom right position as N, N . A position x, y denotes block on x th row and y th column.

Output--

For each test case print the answer of the problem.

Constraints--

$$1 \leq T \leq 100$$

$$6 \leq N \leq 10000$$

Note---

1. There will be only 3 pieces on the board - 2 knights and 1 king.
2. The king cannot occupy the positions already occupied by the knights.

Example---

Input:

```
3
8
3 3 5 6
6
1 1 6 6
6
1 1 5 3
```

Output:

```
46
30
27
```

