**Winter Is Coming**

Lord commander Jon Snow, is preparing his army for fighting against the mighty opponent white walkers. He knows nothing except for how to fight.So he thinks a proper sorting and distribution of army is very important to fight against opponent. And also he knows the strength unit of each ,man of his army. So he has designed his army’s position like the following

1st row:

| 1 |
| --- |

2nd row:

| 1 | 1 |
| --- | --- |

3rd row:

| 1 | 2 | 1 |
| --- | --- | --- |

4th Row:

| 1 | 3 | 3 | 1 |
| --- | --- | --- | --- |

……. Likewise other rows of the army.

To explain the picture, you can say snow has kept a man of strength 1 unit in 1 st row,

Two men in the second row of them there are two men of strength 1 .

In the third row there are 3 men. Of them two are of strength 1 unit and one of them is of strength 2 units. And they are positioned like the picture above.

In the fourth row there are four men positioned.Two of them have strength 1 unit and two of then have strength 3 unit.

Other rows follow this pattern. There can be at most 10000000 rows.

Now, king of white walkers is very genius.He wants to make special weapon for people of each type of strength and use them in the positions where they are stationed so that they can be destroyed.But for this he must know, at a position man of what unit of strength is stationed. As he is genius he could find that easily.Can you find ?

Input Specification:

There can be at most 100000 cases.Each case contains row number and the position at this row of which king of white walkers wants to inquiry. Row number and postion both can be at most 10000000.

Output Specification:

You need to output the strength of the man in the inquiry position in unit. As the number can be very large you must print the answer modulo 1000000007.

Solution:

Number Theory.

Basically we need to find **rowCposition** with the help of moduler inverse and modulus.