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Problem G: Hugphile Order

MCG (Melbourne Cricket Ground) is hosting the finals of the Cricket World Cup 2015. In order to make the coverage as memorable as possible, the organizers have decided to arrange "n" cameras of different resolutions at n different positions on a vertical stand according to a 'Hugphile Order', in remembrance of Phil Hughes.

In a Hugphile Order, the cameras are ordered linearly on a vertical stand at positions p1 to pn, such that the camera at position pi (for i = 2..n) has higher resolution than the camera at position pi/2, where / stands for integer division.

Assuming that the resolutions of the n cameras are in the range 1 to n (both inclusive) and given a camera with resolution "m", find the number of possible positions where it can be placed on the stand in Hugphile Order.

Input:
First line contains number of testcases, T.
Each of the next T lines contain two space-separated integers, "n" and "m"

Output:
Print the answer for each test case on a separate line.

Constraints:
$1 <= T <= 10^5$
$1 <= n <= 10^{18}$
$1 <= m <= n$

Sample Input:
3
2 1
4 2
5 3

Sample Output:
1
2
4

Explanation:
For the first example, camera with resolution 1 can come at first location only.
For the third example, camera with resolution 3 can come at any location except first location.

Time limit to be provided separately