Candy Partition

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Time Limit: 1s

Malam *Halloween* telah tiba! Di lingkungan tempat tinggalmu, sekelompok anak bersemangat mengetuk pintu rumah untuk mengumpulkan permen. Sulis, sebagai pemilik rumah, ingin tahu berapa **banyak cara berbeda** ia dapat membagi permen yang dimilikinya kepada anak-anak yang datang, dengan ketentuan bahwa **setiap anak harus mendapatkan setidaknya satu permen**.

Jika diketahui:

- **N** = Jumlah total permen yang dimiliki Sulis,
- **K** = Jumlah anak yang datang.

Bantu Sulis untuk menghitung **berapa banyak cara pembagian permen** yang mungkin dilakukan pada anak-anak tersebut.

Batasan

- $1 \leq N, K \leq 30$

Format Masukan

Satu baris berisi 2 bilangan bulat, N dan K.

Format Keluaran

Banyaknya cara berbeda untuk membagikan permen kepada anak-anak yang datang dengan pesan:

- "There are X ways to share the candies, A magical Halloween night!", jika banyaknya cara pembagian merupakan **bilangan ganjil**.
- "There are X ways to share the candies, A spooky Halloween night!", jika banyaknya cara pembagian merupakan **bilangan genap**.
- "No fair way to share the candies tonight... A truly spooky Halloween!", jika **tidak ada cara agar semua anak mendapatkan minimal 1 permen**.

tanpa tanda petik dan X merupakan banyaknya cara berbeda pembagian.

Contoh Masukan 1

```
5 3
```

Contoh Keluaran 1

```
There are 6 ways to share the candies, A spooky Halloween night!
```

Penjelasan

Untuk membagi 5 permen ke 3 anak, Sulis dapat memastikan setiap anak mendapatkan 1 permen terlebih dahulu, lalu ia dapat memvariasikan pembagian 2 permen sisanya ke antara 3 anak tersebut.

Contoh kemungkinan pembagian:

1. 1, 2, 2
2. 2, 1, 2
3. 2, 2, 1
4. 1, 1, 3
5. 1, 3, 1
6. 3, 1, 1

Sehingga didapatkan **6 cara berbeda** untuk membagikan permennya.

Contoh Masukan 2

```
7 7
```

Contoh Keluaran 2

```
There are 1 ways to share the candies, A magical Halloween night!
```

Penjelasan

Pada kasus ini, hanya terdapat **1 cara** dimana Sulis membagikan masing-masing 1 permen kepada 7 orang tersebut.

Contoh Masukan 3

```
10 5
```

Contoh Keluaran 3

```
There are 126 ways to share the candies, A spooky Halloween night!
```

Notes:

Wajib diselesaikan menggunakan rekursi, atau solusi kalian tidak dianggap meskipun sudah AC.

Clue:

- **Perhatikan judul & kata yang bercetak tebal.**
- Rumus ini mungkin membantu kalian dalam pengerjaan:

  F(n-1, k-1) + F(n-1, k)

- Butuh clue tambahan? Klik di sini.

Candy Partition

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Time Limit: 1s

Halloween night has arrived! In your neighborhood, a group of children excitedly knock on doors to collect candies. Sulis, as the homeowner, wants to know **how many different ways** she can distribute the candies she has to the children, under the condition that **each child must receive at least one candy**.

If given:

- **N** = The total number of candies Sulis has,
- **K** = The number of children who come.

Help Sulis calculate **how many possible ways she can distribute the candies** to the children.

Constraints

- $1 \leq N, K \leq 30$

Input Format

A single line containing two integers, N and K.

Output Format

The number of different ways to share the candies with the children, followed by one of the following messages:

- "There are X ways to share the candies, A magical Halloween night!", if the number of ways is an **odd number**.
- "There are X ways to share the candies, A spooky Halloween night!", if the number of ways is an **even number.**
- "No fair way to share the candies tonight... A truly spooky Halloween!", if **there is no possible way for each child to get at least one candy**.

No quotation marks should be printed, and X represents the number of different possible distributions.

Sample Input 1

```
5 3
```

Sample Output 1

```
There are 6 ways to share the candies, A spooky Halloween night!
```

Explanation

To distribute 5 candies among 3 children, Sulis can first ensure that each child gets 1 candy, then vary the distribution of the remaining 2 candies among the 3 children.

Example possible distributions:

7. 1, 2, 2
8. 2, 1, 2
9. 2, 2, 1
10. 1, 1, 3
11. 1, 3, 1
12. 3, 1, 1

Thus, there are **6 different ways** to distribute the candies.

Sample Input 2

```
7 7
```

Sample Output 2

```
There are 1 ways to share the candies, A magical Halloween night!
```

Explanation

In this case, there is only **one way**, each child gets exactly one candy.

Sample Input 3

```
10 5
```

Sample Output 3

```
There are 126 ways to share the candies, A spooky Halloween night!
```

Notes:

This problem must be solved using recursion. Any non-recursive solution will not be considered correct, even if it produces the right output.

Clue:

- Pay attention to the title and the bolded words.
- This formula might help you in solving the problem:

  F(n-1, k-1) + F(n-1, k)
- Need another hint? Click here.