

Given two integers  $n$  and  $k$ , return all possible combinations of  $k$  numbers out of  $1 \dots n$ .

You may return the answer in **any order**.

#### Example 1:

**Input:**  $n = 4, k = 2$

**Output:**

```
[
  [2,4],
  [3,4],
  [2,3],
  [1,2],
  [1,3],
  [1,4],
]
```

#### Example 2:

**Input:**  $n = 1, k = 1$

**Output:** `[[1]]`

#### Constraints:

- $1 \leq n \leq 20$
- $1 \leq k \leq n$