

# Artificium

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## Partition Numbers

Runtime Limit – 3s

### Problem Statement

You must determine the **partition number** for a given integer  $n$ . The partition number  $p(n)$  represents the number of **different ways**  $n$  can be expressed as a **sum of positive integers**, irrespective of the order of addends.

### Format

#### Input

**Line 1:** An integer  $T$  representing the number of test cases.

**Next  $T$  lines:** An integer  $n$  for which you need to find the partition number.

#### Output

**$T$  lines:** For each test case, an integer representing the partition number  $p(n)$ .

### Constraints

$$1 \leq T \leq 15$$

$$0 \leq n \leq 100$$

### Sample

#### Input

1

3

## Output

3