

1230. Toss Strange Coins

Description

You have some coins. The i -th coin has a probability $\text{prob}[i]$ of facing heads when tossed.

Return the probability that the number of coins facing heads equals target if you toss every coin exactly once.

Example 1:

Input: $\text{prob} = [0.4]$, $\text{target} = 1$

Output: 0.40000

Example 2:

Input: $\text{prob} = [0.5, 0.5, 0.5, 0.5, 0.5]$, $\text{target} = 0$

Output: 0.03125

Constraints:

- $1 \leq \text{prob.length} \leq 1000$
- $0 \leq \text{prob}[i] \leq 1$
- $0 \leq \text{target} \leq \text{prob.length}$
- Answers will be accepted as correct if they are within 10^{-5} of the correct answer.

