## Pi Mu Epsilon Problem of the Month October 2025

A frog sits on lily pad 1. There are 10 lily pads in a row, numbered 1 to 10. The frog can jump from lily pad *i* to any lily pad *j*, where *i* and *j* are whole numbers and *j*>*i*. If a path is defined to be a sequence of jumps, determine the total number of distinct paths the frog can take to get from lily pad 1 to lily pad 10.

## Problem of the Month Rules:

- **X** Submissions must include a complete mathematical or logical justification along with the answer.
- **X** Submissions may only be made by individuals, or groups of two, and must be dated.
- # Due date: October 27, 2025, before 5 p.m. to Dr. David Shoenthal or Dr. Steven Hoehner.

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