



Problem of the Week

Problem D

The Call Cascade

The POTW School is testing its cybersecurity incident response plan. If the school's communication system is compromised, employees must relay instructions directly to colleagues. The communication director informs up to three employees, each of whom informs up to three others, continuing until everyone has received the instructions.

If the POTW School has 100 employees (including the communication director) and uses a phone call tree system where each employee phones 0, 1, 2, or 3 other employees, determine the maximum number of employees who only receive the message and do not need to make any phone calls in their system.

