

# CAMO 2019/2

Evan Chen

TWITCH SOLVES ISL

Episode 28

## Problem

Let  $k$  be a positive integer,  $p > 3$  a prime, and  $n$  an integer with  $0 \leq n \leq p^{k-1}$ . Prove that

$$\binom{p^k}{pn} \equiv \binom{p^{k-1}}{n} \pmod{p^{2k+1}}.$$

## Video

<https://youtu.be/5hMZamIYjD8>

## **Solution**

TODO. There used to be a solution here, but I don't think it's actually correct.