Abstract

Professor Po-Shen Loh discussed the following problem: A toilet roll with inner circle of radius r and outer circle R has 300 layers of toilet paper: What is the length of the unrolled paper?

Loved his answer. His method was different from ours and forced us to think.

Reference: Ask Math Anything with Po-Shen Loh - 06/19 Fri.

TP Length

for James Toche

June 20, 2020

Problem

Professor Po-Shen Loh discussed the following problem (rephrased a bit): A toilet roll with inner circle of radius r and outer circle R has 300 layers of toilet paper: What is the length of the unrolled paper?

Approach 1: Length from Area

Approach 2: Length from Circumference