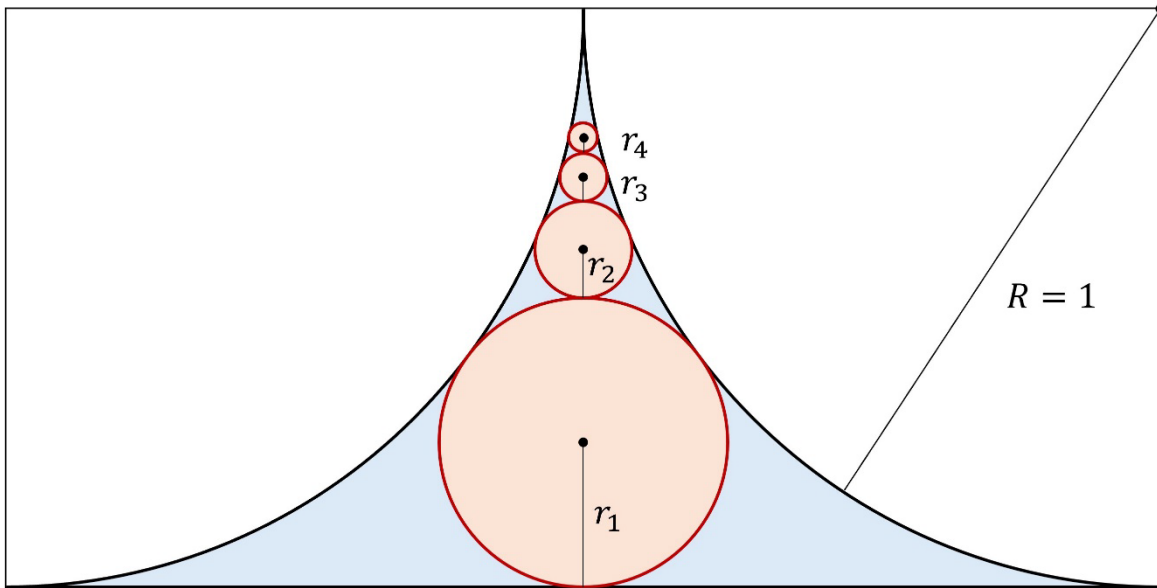


UC Merced Applied Math Problem of the Month

February 2025



1. What is the radius r_1 of the circle inscribed in the blue region (defined by two touching unit circles and their common tangent line)?
2. What is the radius r_2 of the second inscribed circle touching the two unit circles as well as the first inscribed circle?
3. Let's consider the n th inscribed circle. Can you devise a method to obtain its radius r_n ?

To submit your solutions for a chance to win an Amazon gift card, and to find out detailed contest rules,

- scan the QR code, or
- go to <https://bit.ly/UCM-POTM>

