

## WHAT IS PONCELET PORISM?

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In 1822, Jean Victor Poncelet proved a remarkable theorem regarding the existence of a polygon inscribed within an ellipse  $C$  and circumscribed around another ellipse  $D$ , now known as Poncelet's porism. In this talk, I will explain the statement of this theorem, an elementary analytic proof for the case when both  $C$  and  $D$  are circles, and how it naturally leads to the definition of elliptic sine and cosine functions of Abel and Jacobi.