$M = 4^5 - 4 = 1020.$

Before ending the article, we mention again that the proof of Sarkovskii’s beautiful theorem is far from advanced mathematics. This big surprise shows that people need not have advanced knowledge to establish mathematics if, when opportunity arrives, it is recognized.

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REFERENCES


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Proof without Words: The law of cosines via Ptolemy’s Theorem

\[
\begin{align*}
  c \cdot c &= b \cdot b + \left( a + 2b \cos(\pi - \theta) \right) \cdot a \\
  c^2 &= a^2 + b^2 - 2ab \cdot \cos \theta
\end{align*}
\]

—Sidney H. Kung

Jacksonville University
Jacksonville, FL 32211