

This note, that [was found here](#), as a part of [a collection](#) is written (completely with human hands) by [Rupadarshi Ray](#), was created on May 2, 2026 11:53:59 PM, was last modified on May 17, 2026 4:12:00 PM, and was exported on September 7, 2026 2:50:35 PM.

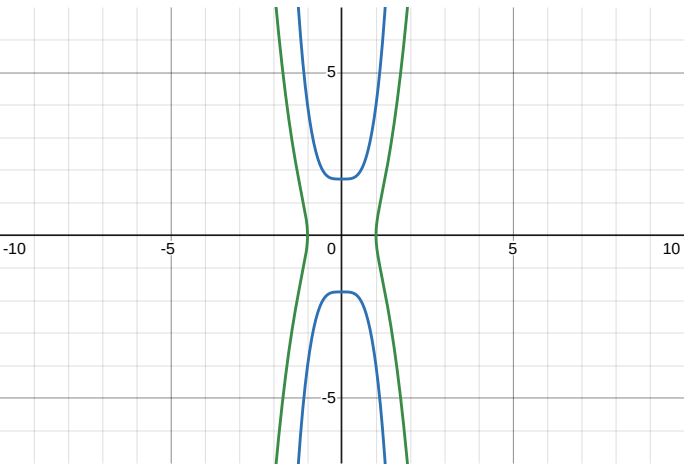
$$(X,Y) \mapsto \left(\frac{1+X^2}{1-X^2}, \frac{2XY}{(1-X^2)^3}\right)$$

Proposition:

$$\begin{aligned} Z(3X^8 + 10X^4 + 3 - Y^2) \setminus \{(1,4), (-1,-4)\} &\rightarrow Z(X^6 - 1 - Y^2) \\ (X,Y) &\mapsto \left(\frac{1+X^2}{1-X^2}, \frac{2XY}{(1-X^2)^3}\right) \end{aligned}$$

is a covering of Riemann surfaces.

[1]



Current note has 0 direct children and 0 total descendants.

- [squishy](#)
 - [rat](#)
 - $(X,Y) \mapsto \left(\frac{1+X^2}{1-X^2}, \frac{2XY}{(1-X^2)^3}\right)$

And it has 3 siblings.

- [squishy](#)
 - [rat](#)
 - $(X,Y) \mapsto \left(\frac{1+X^2}{1-X^2}, \frac{2XY}{(1-X^2)^3}\right)$
 - $\frac{z}{z^2-1} = \frac{z}{(z+1)(z-1)}$
 - $\frac{1}{1-z}$

1. https://www.mathematik.hu-berlin.de/~kraemeth/old-stuff/riemann-surfaces/Problems_06.pdf ↗