$$
\begin{aligned}
(x-\imath)^{36}+(x+\imath)^{36} &= 0\\
(x+\imath)^{36} &= -(x-\imath)^{36}\\
z_k^{36} &= -1\\
|z_k| &= \sqrt{1} = 1\\
z_k^{36} &= \cos\pi + \imath\sin\pi\\
z_k &= \sqrt[36]{\cos\pi + \imath\sin\pi}\\
z_k &= \cos\frac{\pi+2k\pi}{36} + \imath\sin\frac{\pi+2k\pi}{36}\\
y &= z_k,\ k = 0,1,\ldots,35\\
\frac{x+\imath}{x-\imath} &= y\\
x+\imath &= y(x-\imath)\\
x+\imath &= yx-y\imath\\
\imath+y\imath &= yx-x\\
(1+y)\imath &= (y-1)x\\
x &= \frac{(y+1)\imath}{(y-1)}
\end{aligned}
$$