It is not so straight forward to visualise a complex valued function of a complex variable. This is because the graph of such a function is a surface in four-dimensional space. Here are some tools for visualising complex functions.

- https://mabotkin.github.io/complex/
- https://vankessel.io/visualizing-complex-functions
- http://davidbau.com/conformal/

Finally Mathematica can also be used:

- https://www.wolfram.com/language/12/complex-visualization/