

Question

Let X be the plane region lying between the positive real axis and imaginary axis and the “positive ” branch of the hyperbola $xy = 1$.

Sketch the regions

$$iX = \{iz | z \in X\}; \quad \bar{X} = \{\bar{z} | z \in X\}; \quad X^2 = \{z^2 | z \in X\}.$$

Answer