

Exercise 1. Find all the roots $\sqrt[3]{z}$, where $z = \operatorname{Im}((4-i)^2)$

Exercise 2. Solve the equation: $z^4 = (2i - 2)^{12}$.

Exercise 3. The number $z_1 = 2i$, is a root of the polynomial:

$$W(z) = z^4 + 2z^3 + 9z^2 + 8z + 20.$$

Find all the other roots.

Exercise 4. Find all the roots of the polynomial: $W(z) = z^3 - 2z^2 + 6z + 9$.