

Liceo Scientifico Statale M.Grigoletti, Pordenone
Modulo CLIL sui Numeri Complessi
Homework - Lessons 7 and 8

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Calculate the following powers of complex numbers:

1. $(1 + i)^5$
2. $(-1 + i)^{10}$
3. $(1 - i)^{12}$
4. $2(\sqrt{3} + i)^7$
5. $4(1 - \sqrt{3}i)^3$
6. $[1, 225^\circ]^{10}$
7. $[2, 90^\circ]^8$

Calculate the following roots and represent them in the Gauss plane:

1. $\sqrt[3]{-4\sqrt{2}(1 - i)}$
2. $\sqrt[4]{-1}$
3. $\sqrt{-i}$