

Exercise 1	Calc. : X
5 marks	Déterminer les solutions complexes de l'équation $z^2 = 3i$. Donner les réponses sous la forme $z = re^{i\theta}$ où $\theta \in]-\pi, +\pi]$.

Exercise 2	Calc. : X
5 marks	Find a complex number z that is a cube root of $-8i$ and a fourth root of $-8 - 8i\sqrt{3}$.

Exercise 3	Calc. : X
5 marks	In the complex plane, show that the set of points M with affix z checking equality: $ z - 1 - 3i = z + 2 - 3i $ is a straight line for which we give an equation.