

- 1) Write $z = 11\text{cis}(85^\circ)$ in the algebraic form
- 2) Write $z = \frac{-50i}{4-3i}$ in the algebraic form and trigonometric form
- 3) Solve $(\bar{z})^2 = -9i$. Give the answers in the trigonometric form.
- 4) Check that $z_1 = 1 - 5i$ is a solution of $2z^2 - 4z + 52 = 0$ and determine the other solution.
- 5) Give the geometric interpretation of the transformations $f(z) = 7z$ and of $g(z) = \bar{z} + 2i$