

MATH1009 – Quiz M2a
Wednesday, March 20, 2019
Instructor: Abuzer Yakaryılmaz

Name and surname:

Student number:

Questions

(30 minutes / 5 points in total)

Let $z_1 = -2 + i$ and $z_2 = 1 - 3i$.

1. (1 point) Express the complex number $z_1 \overline{z_2}$ in the form of $x + iy$.
2. (1 point) Express the complex number $\frac{1}{z_1} + \frac{1}{z_2}$ in the form of $x + iy$.
3. (1 point) Find the complex-valued roots of the equation $x^2 + 4x + 5 = 0$.
4. (1 point) Find $|-4 + 3i|$.
5. (1 point) Express the complex number $e^{i\frac{5\pi}{3}}$ in the modulus-argument form.
Remember that $\sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}$ and $\cos \frac{\pi}{3} = \frac{1}{2}$.

During the exam, please do not use any electronic device or any course (related) material.