

MA2287: Complex Analysis Exam Notes

Robert Davidson

Contents

1	Question 1:	3
1.1	Sketch the region in the complex plane determined by the inequality	3
1.2	Determine all solutions to roots of unity	3
1.3	Determine and sketch the image under the mapping	3
1.4	Find z where the function is 0	3
1.5	Calculate principal value $\text{Log}(z)$	3
1.6	Prove the following	3

1 Question 1:

1.1 Sketch the region in the complex plane determined by the inequality

- $|z - 4| > 3|z + 4|$ (2023 (a))

1.2 Determine all solutions to roots of unity

1.3 Determine and sketch the image under the mapping

1.4 Find z where the function is 0

1.5 Calculate principal value $\text{Log}(z)$

1.6 Prove the following