

Q1

(a) Outline:

We have that f is Harmonic on $V \setminus \{a, z\}$, while $f(a), f(z) \in \mathbb{R}$ are free, this is an instance of the discrete Dirichlet problem, and so there is a unique solution f .

(b)

Q2

Q3

Q4

Q5

(a)

Q6