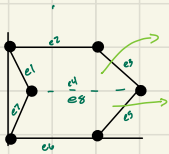
Assignment 2

Q1.



$\exists e_n \in E,\ e_n(x,y) = \begin{cases} z \le 0, & \text{true} \\ \text{otherwise}, & \text{false} \end{cases}$

$e_1 = -2x - y + 2$

$e_2 = y - 2$

$e_3 = y + x - 4$

$e_4 = 1 - y$

$e_5 = x - 2 - y$

$e_6 = -y$

$e_7 = 2x - y$

$e_8 = 2 - y$

$\lambda_1(x,y) = e_1(x,y) \cap e_2(x,y) \cap e_3(x,y) \cap e_4(x,y)$

$\lambda_2(x,y) = e_5(x,y) \cap e_6(x,y) \cap e_7(x,y) \cap e_8(x,y)$

$S(x\_q) = \lambda_1 \cup \lambda_2$

Q2.