## Blockchain Homework 3, Mixer Solution Jacob Everly (Je354)

Input:1MVXpgczazLvbtS8Nfp9v3Qpj4d8pUNXQM (Grams Helix - grams7enufi7jmdl.onion/helix)

Output: 1MTbp4bFftessrbTTpM5SC5Ap1iKaMHrM7

Input:135g5Es7VXvbaAkwzguv7q7xaSSTifav5H (Bitcoin Fog - foggeddriztrcar2.onion)

Output:13MUZ1Qk36LqExdcSRDZCxNRP1pcz1b5mT

Input:1GcZjZnfQUCs9L9RoAFLdd8YET2WQWrDAz (CoinCloud - coincloud25txgdf.onion)

Output:18RwKzXtL5YGvFwa9BHrPRvqXLkdYWsGfp

Input:1KGhtebk4Nr2zZSn2NaFepeNF6KyjxpPJZ (PenguinMixer - penguinsmbshtgmf.onion)

Output:1BCaztysy2paguXjuC8c652vckNMks69ce

I was able to find the corresponding addresses because they had similar balances. More precisely the balances of the output addresses were a tad bit smaller than the input due to the fee associated with doing a transaction on bitcoin and I assume from the tumbler itself. This shows that even though you can mix around your addresses, there are still ways to track the owner of the bitcoin such as UTxo value in this example. As talked in class you can also use other Metadata such as age of a UTxo or time of transactions, to possibly further identify the user of certain output addresses.