

Homework 4

1. Voice voting is the method of casting a vote in the 'open air' for everyone present to hear. Which of the following security requirements do paper ballots satisfy better than voice voting? Check all that apply and give a brief explanation for your decision.

Integrity

Enfranchisement

Ballot secrecy

Voter authentication

Availability

2. Explain how an attacker can use chain voting in order to influence the outcome of a poll using paper ballots.

3. Which of the following mechanisms help with defending against chain voting? Check all that apply. Give a brief reason for each defence that mitigates chain voting attacks.

Using a glass ballot box to make it clear there are no ballots in the box before the start of the election.

Distributing ballots publicly before the election.

Checking that a voter's ID (drivers license, passport) matches the voter.

Each ballot has a unique ID. When a voter is given a ballot, the ID is recorded. When the voter submits his or her ballot, this ID is checked against the record.