

Quiz 3a

- Honor Code: You must work completely independently on this assignment. Do not discuss the questions or answers with each other before the assignment is due. Any breach of the honor code will be handled per the University's policy on academic honesty.
 - Follow the instructions very careful. Answers that do not conform to the instructions will not be given credit.
 - Submit your answers through Blackboard as a PDF file
 - You may use your BCT textbook only. Do not use any other resources.
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1. Which of these factors **make distributed consensus hard**? Select all that apply.
 - a. **Nodes may crash**
 - b. **Nodes may be taken over by malware**
 - c. Encrypted messages may be intercepted and decrypted
 - d. **There is latency on the network**

 2. Why is **Bitcoin able to reach consensus in practice** despite this being a generally difficult problem? Select all that apply.
 - a. **Financial incentives cause participants to work together**
 - b. Only small groups of nodes need to reach consensus rather than the network having to globally reach consensus
 - c. The order of blocks doesn't matter for consensus
 - d. **Consensus only needs to be reached over relatively long time-scales**

 3. What can a **malicious node** do? Select all that apply.
 - a. Create valid transactions originating from someone else's address
 - b. Prevent a valid transaction from getting any confirmations
 - c. **Ignore the longest valid branch rule when proposing a new block**