Review for 2nd Midterm

• Principles of QoS
• Fair Rate Computation
• Max-min Fairness
• Scheduler:
  – FIFO, TDMA, Priority, Round Robin
• Classifier
• Fluid model Queuing
• Weighted Fair Queuing
  – Virtual Time
  – Algorithm for WFQ
Review for 2\textsuperscript{nd} Midterm

- Properties of FIFO with Tail-drop
- Random Early Detection (RED) queue
  - Advantages of RED
  - Understand the formula/mechanism for packet dropping
- Policy Mechanisms
  - Leaky Bucket
  - Token Bucket
Review for 2\textsuperscript{nd} Midterm

• P2P Networks
  – Primitive operations
  – Architectures/operations of different P2P networks
  – Search/fetch/join/publish in Chord, Freenet, KaZaa, Gnutella, BitTorrents
  – DHT
Review for 2nd Midterm

• Principle of Network Security
  – Confidentiality
  – Authentication
  – Message Integrity
  – Access and Availability

• Symmetric Key vs. Public Key Encryption

• Kerberos

• RSA

• Digital Signature

• Message Digest
Review for 2\textsuperscript{nd} Midterm

• Key Distribution and Certification
• Attack and Counter measures
• WEP
• Secure Email
• SSL
• Virus, Worms, …