**pfSense Configuration Cheat Sheets**

**🔹 1. Initial Setup**

* **Default access:**
  + IP: 192.168.1.1
  + Username: admin
  + Password: pfsense
* **Wizard steps:**
  + Hostname, domain, DNS
  + WAN + LAN interfaces
  + Set admin password

**🔹 2. Interfaces Configuration**

* **Set up WAN/LAN interfaces manually:**
  + Navigate: Interfaces > Assignments
  + Assign physical interfaces
  + Configure IPs: Interfaces > [WAN/LAN]
  + Common:
    - LAN: Static (e.g. 192.168.10.1/24)
    - WAN: DHCP or Static (depends on setup)

**🔹 3. DHCP Server**

* Services > DHCP Server
  + Enable for LAN
  + Define IP range (e.g. 192.168.10.100 - 192.168.10.200)
  + Add static leases if needed

**🔹 4. Firewall Rules**

* Default: all outbound from LAN is allowed
* Common:
  + Allow SSH:
    - Interface: LAN
    - Protocol: TCP
    - Source: LAN subnet
    - Port: 22
* To allow ICMP (ping):
  + Protocol: ICMP
  + Action: Pass

**🔹 5. NAT Configuration**

* Firewall > NAT > Outbound
  + Set to "Manual Outbound NAT rule generation"
  + Ensure LAN is translated to WAN (MASQUERADE/SNAT)

**🔹 6. VPN Setup (optional preview)**

* OpenVPN wizard: VPN > OpenVPN > Wizards
  + Generates CA, certs, server
  + Use port 1194 UDP
  + Export clients: use client export package

**🔹 7. Package Management**

* Add-ons via System > Package Manager
  + Common:
    - pfBlockerNG
    - OpenVPN-client-export
    - Squid (for proxy)
    - Snort (for IDS/IPS)

**🔹 8. Access & Maintenance**

* Web UI: HTTPS on LAN IP (https://192.168.10.1)
* SSH access:
  + Enable in System > Advanced > Admin Access
  + Use key auth or password
* Backups:
  + Diagnostics > Backup/Restore