# cisco packet tracer

## general

- help: ? is for help
  - ex: show ip ?

## router

### ip addressing

- static addressing (against dhcp)

```
ip address ipaddress subnetmask
```

### routing table

- see the routing table

```
show ip route
```

- set routing table

```
ip route destinationnetworkip subnetmaskip nextrouterportip
```

### nat

- see the nat table

```
show ip nat translations
```

- see the nat history

```
show ip nat statistics
```

- set nat table

```
enable
config t
```

- static

  - in intermediary router

    ```
    ip nat inside source static <privateip> <newuniquepublicip>
    ```

  - in intermediary router private port

    ```
    interface interfacename
    ip nat inside
    exit
    ```

  - in intermediary router public port

    ```
    interface interfacename
    ip nat outside
    exit
    ```

- dynamic no overload (no on port)

  ```
  ip nat pool <poolname> <ipstartrange> <ipendrange> prefix
  <subnetprefix> [overload]
  access-list <listnumber> permit <networkip> <wildcard>
  ip nat inside source list <listnumber> pool <poolname>
  ```

  - see access-lists

  ```
  show access-list
  ```

  > pool is where new ips can be made.
  > access-list is what private ip's can has access in this subnet.
  > pool specified with name but list specified with number!