The speed command

- The rate that Ethernet interfaces physically transmit at is set by the 'speed' command

- GigabitEthernet interfaces transmit at 1000 Mbps by default

- FastEthernet interfaces transmit at 100 Mbps by default

- If you use the 'speed 10' command on a FastEthernet interface it will physically transmit at 10 Mbps

The `clock rate` command

- The rate that Serial interfaces physically transmit at is set by the 'clock rate' command

- Serial interfaces transmit at 1.544 Mbps by default

- If you use the 'clock rate 64000' command on a Serial interface it will physically transmit at 64 Kbps

The `bandwidth` command

- Interfaces also have a default bandwidth (eg 100 Mbps on FastEthernet interfaces, 1.544 Mbps on a serial interface)

- The bandwidth usually matches the physical transmission rate of the interface

- The 'bandwidth' setting on an interface **does not** affect the physical transmission rate – that is set by the 'speed' or 'clock rate'

- If you set a bandwidth of 50 Mbps on a FastEthernet interface, it will still transmit at 100 Mbps

The `bandwidth` command

- The bandwidth command affects software policy on the router, such as which path will be selected by EIGRP or OSPF, or how much bandwidth will be guaranteed to a traffic type by QoS

- You can influence software policy by setting the bandwidth on an interface