# Hub:

# Similar network devices are linked via the hub. It is dumb, it does not know which port is which PC. It broadcasts all messages, i.e.: packets. Choose any.

# Switch:

It is intelligent. It broadcasts first to get to know where each PC is and then remembers the ports on which those PC are. It then only sends the packet to the intended user. Represented as a rectangle with a cross in between the rectangle.

We can use any switch but will use the first one in the cisco packet tracer. The only difference between each switch is the number of ports.

# Router:

Represented as a circle and a cross in it. Currently we will use the 1841 router.

# Wires:

We will use serial DC, copper crossover, copper straight through. Copper straight used to join 2 different things.

# IP Addresses:

255.255.255.255

To give **network id** we don’t / can’t use either 0 or 255. We will choose a number between 1-254. 0 is not chosen as we keep it as the default value. There are 4 classes of IP addresses A,B,C,D.

A = 1.0.0.0 to 126.255.255.255

B = 127.0.0.0 to 191.255.255.255

C = 192.0.0.0 to 223.255.255.255

Class C is mostly used for private networks.