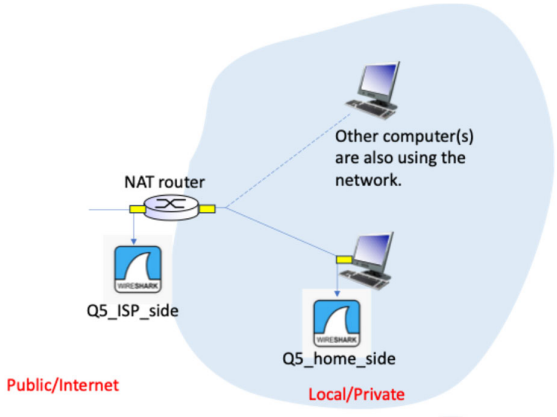
Q5. Wireshark (NAT). In this question, we investigate packets of one client PC in a home network. The PC is communicating with a remote server. The home network router provides an NAT service. The figure below shows our Wireshark trace collection scenario.



We collected Wireshark trace file (you can find them at modules – assignment 2) on the client PC in the local home network. The file is called Q5_home_side. Meanwhile, we also collected a second trace file at the interface of the home router connecting to the public Internet, as shown in the figure above. The file is called Q5_ISP_side.

(1) Use the trace files and investigate them carefully. Please write down the NAT translation table entries in the NAT router for the traffic you can find in Q5_home_side and Q5_ISP_side. Find as many entries as possible. For each entry, please give screenshots to justify your answer. (If your table has more than 5 entries, just give the screenshots for the first 5 entries in your table.) Please note that some other computers are also using the local network, and their traffic may also appear in Q5_ISP_side but not in Q5_home_side. You should ignore them when you figure out the NAT translation table.

(2) What is the MAC address of the client PC? What are the MAC addresses at the two interfaces of the NAT router? Please give you screenshots.