**Network configuration on Linux**

Setup a new linux virtual machine using Virtual Box and perform the following:

1. Find and by running the appropriate commands and report the following:
   1. MAC address.
   2. IP address.
   3. Netmask.
   4. Default Gateway.
2. By executing the appropriate commands, enter the following network settings:
   1. IP: change the last decimal number to any number between 2-13.
   2. Network mask : /16.
3. Enter the ip / mac correlation "172.17.0.1 00: 02: 23: 45: 32: A2" to the arp cache of your computer. Display the arp cache.
4. Enter a route for the network 192.168.0.0 mask 255.255.255.192. The gate is 172.17.0.1. Display the routing table.
5. Delete the previous record.
6. Enter the routing for the network 10.17.2.0 mask 255.255.255.192. The gate to is 172.19.0.1. What happened? Explain
7. What is the web (network) and most of the computer (host) part of the IP address 10.64.1.129/28;
8. Divide the network 129.2.3.0/16 in 4 subnets. For each subnet record range
9. of valid IP addresses and the broadcast address.

**Footnote**

In your report I expect to see the "import" a little theory about IP (Addressing & subnetting). In the "methods" to show the work you have to do and equipment used. Also given the methodology used for the last two questions. The results appear commands and their outputs (if Use screenshots). The conclusions to cite briefly results of laboratory exercise by referring to what you learned as knowledge and if the results are the same as you expected. In the reports cite any external sources used.