# IP Addressing Homework

For each of the IP addresses and masks below, list the network address, broadcast address, and the available host addresses. The address you’ve been given could be a network, host, or broadcast address.

1. 192.168.1.0 255.255.255.0
   1. Network 192.168.1.0
   2. Broadcast 192.168.1.255
   3. Hosts 192.168.1.1 - 254
2. 192.168.52.138 255.255.255.0
   1. Network 192.168.52.0
   2. Broadcast 192.168.52.255
   3. Hosts 192.168.52.1-254
3. 200.72.6.255 255.255.255.0
   1. Network 200.72.6.0
   2. Broadcast 200.72.6.255
   3. Hosts 200.72.6.1-254
4. 156.99.165.17 255.255.0.0
   1. Network 156.99.0.0
   2. Broadcast 156.99.255.255
   3. Hosts 156.99.0.1 to 156.99.165.254.254

These problems are more difficult. You may use the calculator on <http://www.subnet-calculator.com/cidr.php>, although macho network engineers can do them in their heads ;-) Note that the calculator “CIDR address range” field includes the network and broadcast addresses, as well as the available host addresses.

1. 172.16.18.121 255.255.254.0
   1. Network 172.16.18.0
   2. Broadcast 172.16.19.254
   3. Hosts 172.16.18.1 to 172.16.19.254
   4. CIDR mask bits 23
2. 10.2.56.200 255.255.255.192
   1. Network 10.2.56.192
   2. Broadcast 10.2.56.255
   3. Hosts 10.2.56. 193 - 254
   4. CIDR mask bits 26