Q.1

A, C, D and E are correct, B is wrong as it has 381 which is too high.

Q.2

255.255.255.0:

a. /24

b. 254

c. 11111111.11111111.11111111.00000000

255.255.255.128:

a. /25

b. 126

c. 11111111.11111111.11111111.10000000

255.255.0.0:

a. /16

b. 256 x 256 = 65,536 , minus the first and last ones leaves 65,534

c. 11111111.11111111.00000000.00000000

Q.3

/24:

a. 255.255.255.0

b. 254

/25:

a. 255.255.255.128

b. 126

/26:

a. 255.255.255.192

b. 62

Q.4

a. First host = 10.10.0.1, Last host = 10.10.0.254, Broadcast = 10.10.0.255

b. First host = 10.10.10.241, Last host = 10.10.10.254, Broadcast = 10.10.0.255

c. First host = 192.168.0.129, Last host = 192.168.0.254, Broadcast = 192.168.0.255

Q.5

Toolbox 1 and 2 can ping each other and the 192.168.0.1 of the router but not the 10.10.10.1.

Toolbox 3 and 4 can ping each other and the 10.10.10.1 of the router but not the 192.168.0.1.

The router can ping all 4 toolboxes.