Camada de Redes

Exercícios baseados no capítulo 5 do livro Computer Networks, Tanenbaum & Wetherall:

13. A router has the following (CIDR) entries in its routing table:

Address/mask	Next hop
135.46.56.0/22	Interface 0
135.46.60.0/22	Interface 1
192.53.40.0/23	Router 1
default	Router 2

For each of the following IP addresses, what does the router do if a packet with that address arrives?

(a) 135.46.63.10

(b) 135.46.57.14

(c) 135.46.52.2

(d) 192.53.40.7

(e) 192.53.56.7

16. A network on the Internet has a subnet mask of 255.255.240.0. What is the maximum number of hosts it can handle? Explain your answer.

17. Use the traceroute (UNIX) or tracert (Windows) programs to trace the route from your computer to various universities on other continents. Make a list of transoceanic links you have discovered. Some sites to try are: www.ucla.edu (California), www.mit.edu (Massachusetts), www.vu.nl (Amsterdam), www.ucl.ac.uk (London), www.usyd.edu.au (Sydney), www.u-tokyo.ac.jp (Tokyo), www.uct.ac.za (Cape Town)

18 . The CPU in a router can process 2 million packets/sec. The load offered to it is 1.5 million packets/sec. If a route from source to destination contains 10 routers, how much time is spent being queued and serviced by the CPUs?

19. A large number of consecutive IP address are available starting at 198.16.0.0. Suppose that four organizations, A, B, C, and D, request 4000, 2000, 4000, and 8000 addresses, respectively,

and in that order. For each of these, give the first IP address assigned, the last IP address assigned, and the mask in the w.x.y.z/s notation.

Exercício não baseado no livro

1) Complete a tabela de roteamento do roteador R1 da topologia da figura abaixo.
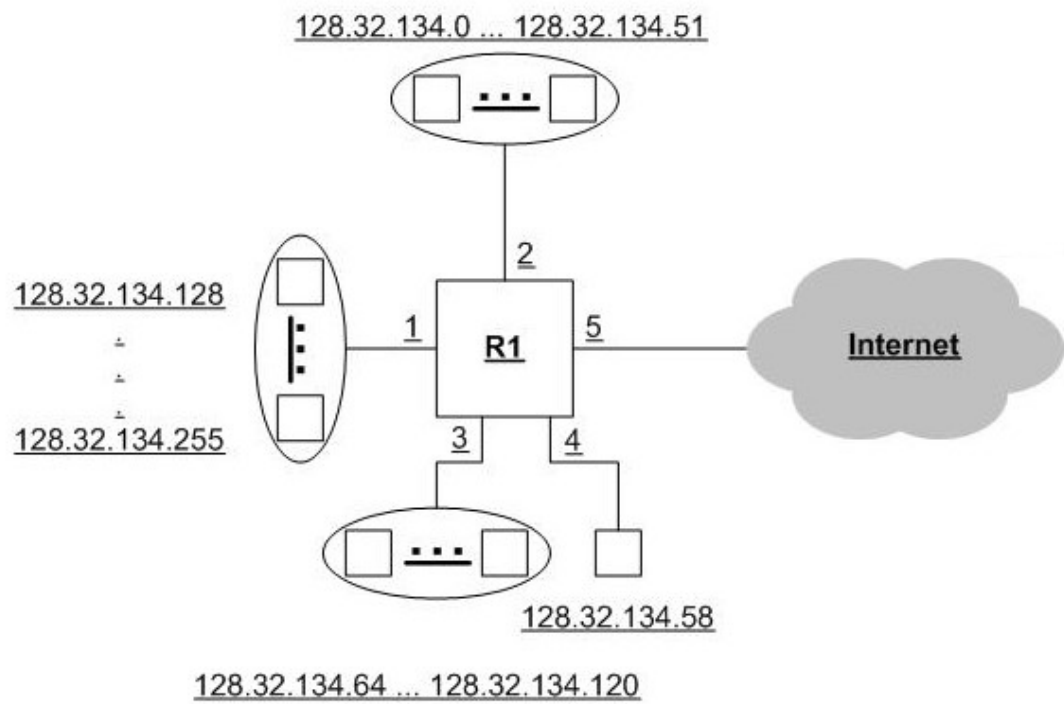
Rede (prefixo IP da rede com indicador da máscara)	Interface (número da interface de saída)
128.32.134.128/25	1