Available time: 60 minutes.

Using Netkit, implement the network depicted in the figure and described below.

- The network consists of two zones (indicated by clouds in the figure) where OSPF and RIP are used as routing protocols, respectively.
- OSPF routers are set up as follows:
  - all OSPF-speaking interfaces belong to area 0.0.0.0.
  - OSPF-speaking interfaces are assigned the specified costs (the default cost is assumed where omitted).
- Router `br` is placed across the two zones and performs the following operations:
  - on the OSPF side, it redistributes all routes learned by RIP;
  - on the RIP side, it does not redistribute any routes: instead, it statically announces only routes 1.0.0.0/24 and 10.0.0.0/8.
- Node `server` runs a Web server implemented using apache, which serves a default Web page available at `http://2.0.0.2/`.

**Goal**: Node `host` must be able to access the Web page available at `http://2.0.0.2/`. Moreover, verify that the routing path computed between `host` and `server` uses links `E` and `D` in both directions.
Available time: 60 minutes.

Using Netkit, implement the network depicted in the figure and described below.

- The network consists of two zones (indicated by clouds in the figure) where OSPF and RIP are used as routing protocols, respectively.
- OSPF routers are set up as follows:
  - all OSPF-speaking interfaces belong to area 0.0.0.0.
  - OSPF-speaking interfaces are assigned the specified costs (the default cost is assumed where omitted).
- Routers `br1` and `br2` are placed across the two zones and perform the following operations:
  - on the OSPF side, they both redistribute all routes learned by RIP;
  - on the RIP side, `br2` does not redistribute any routes: instead it statically announces only the default route 0.0.0.0/0;
  - on the RIP side, `br1` does not redistribute any routes: instead it statically announces only route 20.0.0.0/24.
- Node `www-server` runs a Web server implemented using apache, which serves a default Web page available at http://20.0.0.2/.

**Goal**: Node `client` must be able to access the Web page available at http://20.0.0.2/. Moreover, verify that the routing path computed from `client` to `www-server` uses links `L` and `H`, and the path from `www-server` to `client` uses link `T`. 
Using Netkit, implement the network depicted in the figure and described below.

- The network consists of two zones (indicated by clouds in the figure) where RIP and OSPF are used as routing protocols, respectively.
- OSPF routers are set up as follows:
  - all OSPF-speaking interfaces belong to area 0.0.0.0.
  - OSPF-speaking interfaces are assigned the specified costs (the default cost is assumed where omitted).
- Router border is placed across the two zones and performs the following operations:
  - on the OSPF side, it redistributes all routes learned by RIP;
  - on the RIP side, it does not redistribute any routes: instead, it statically announces only routes 190.1.0.0/24 and 1.0.0.0/16.
- Node webserver runs a Web server implemented using apache, which serves a default Web page available at http://190.1.0.2/.

**Goal:** Node pc must be able to access the Web page available at http://190.1.0.2/. Moreover, verify that the routing path computed between pc and webserver uses links D and E in both directions.
Available time: 60 minutes.

Using Netkit, implement the network depicted in the figure and described below.

- The network consists of two zones (indicated by clouds in the figure) where OSPF and RIP are used as routing protocols, respectively.
- OSPF routers are set up as follows:
  - all OSPF-speaking interfaces belong to area 0.0.0.0.
  - OSPF-speaking interfaces are assigned the specified costs (the default cost is assumed where omitted).
- Routers border1 and border2 are placed across the two zones and perform the following operations:
  - on the OSPF side, they both redistribute all routes learned by RIP;
  - on the RIP side, border1 does not redistribute any routes: instead it statically announces only the default route 0.0.0.0/0;
  - on the RIP side, border2 does not redistribute any routes: instead it statically announces only route 1.1.0.0/24.
- Node srv a Web server implemented using apache, which serves a default Web page available at http://1.2.0.2/.

Goal: Node workstation must be able to access the Web page available at http://1.2.0.2/. Moreover, verify that the routing path computed from workstation to srv uses link B, and the path from srv to workstation uses links W and T.