Using Netkit, implement the network depicted in the figure and described below.
- ☐ **r1**, **r2**, **r3**, and **r4** are routers running OSPF.
  - o All routers belong to the area 0.0.0.0.
  - o Interface **eth0** of router **r4** and interface **eth1** of router **r3** have OSPF cost 100.
- ☐ **r5**, **r6**, **r7**, and **r8** are routers running RIP.
- ☐ Router **r6** redistributes the route 40.0.0.0/16 into RIP, as well as every directly connected route.
- ☐ Router **r1** redistributes the route 50.0.0.0/16 into OSPF, as well as every directly connected route.
  - o *Hint*: to redistribute static routes into OSPF use the command `redistribute kernel`. Such a command redistributes into OSPF each static route installed in the kernel routing table.

Goals:
Every IP address in the network must be reachable from any router.
The traffic generated from **r3** and directed to **r6** must pass through routers **r4**, **r2** and **r1**.