

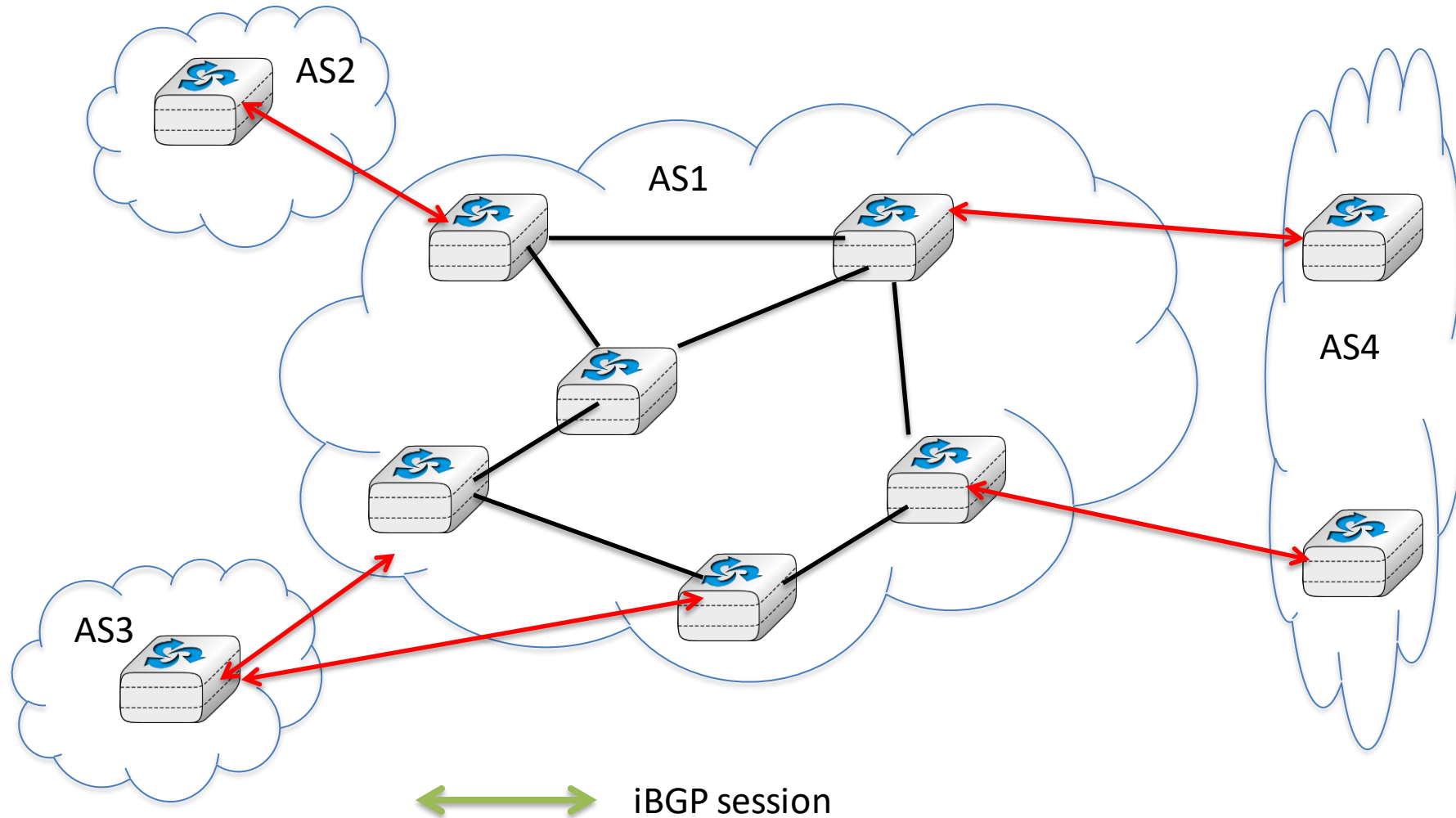
LINFO1341

TP – iBGP & eBGP

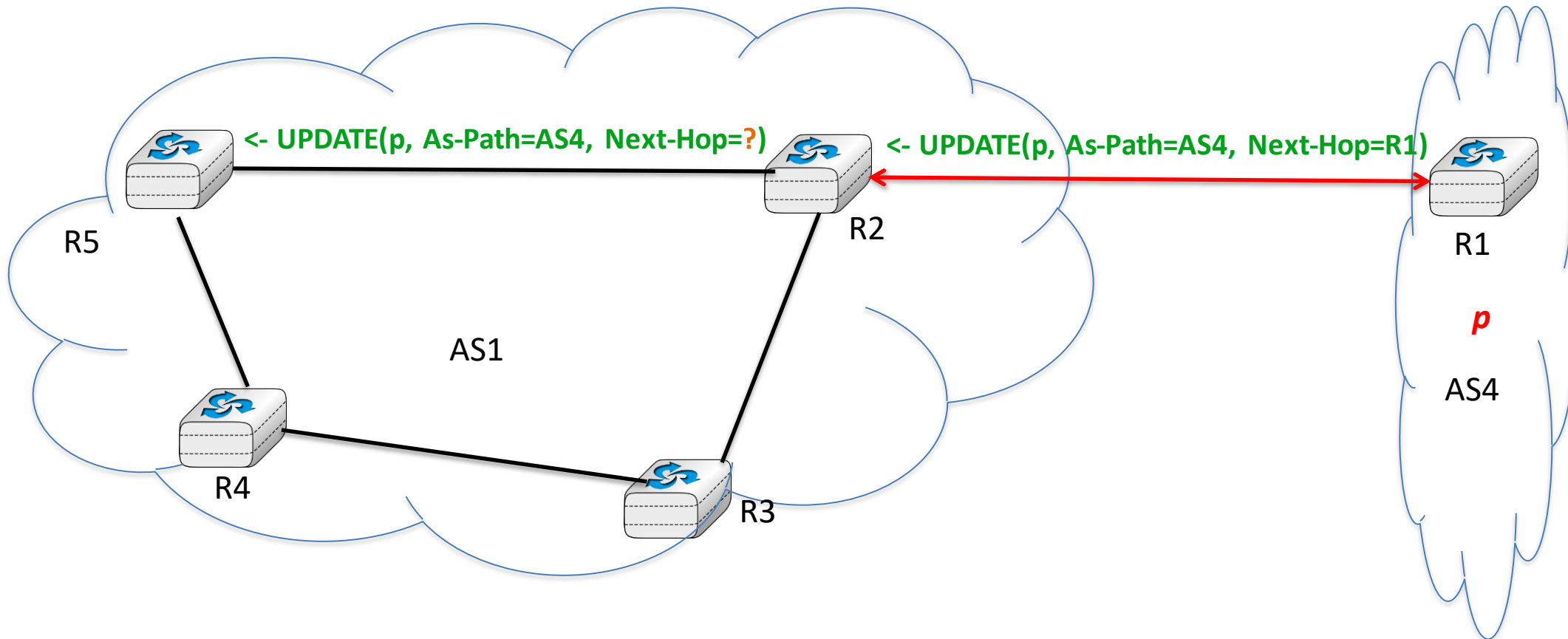
The BGP decision process

1. Ignore routes having an unreachable BGP nexthop
2. Prefer routes having the highest local-pref
3. Prefer routes having the shortest AS-Path
4. *(Prefer routes having the smallest MED)*
5. Prefer routes learned via eBGP sessions over routes learned via iBGP sessions
6. Prefer routes having the closest next-hop
7. Tie breaking rules : prefer route learned from the router with lowest router id

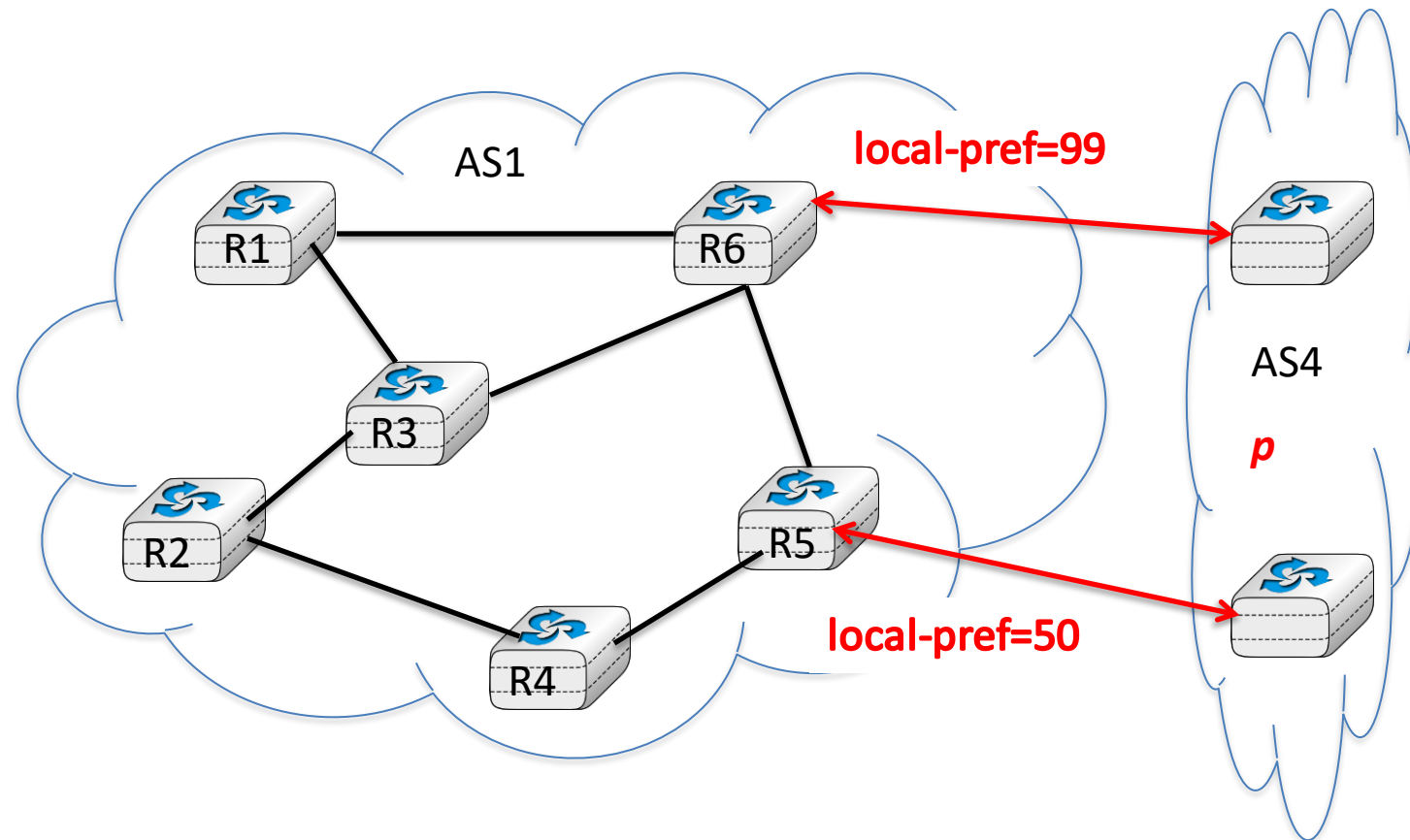
Question 0: Draw iBGP sessions in AS1



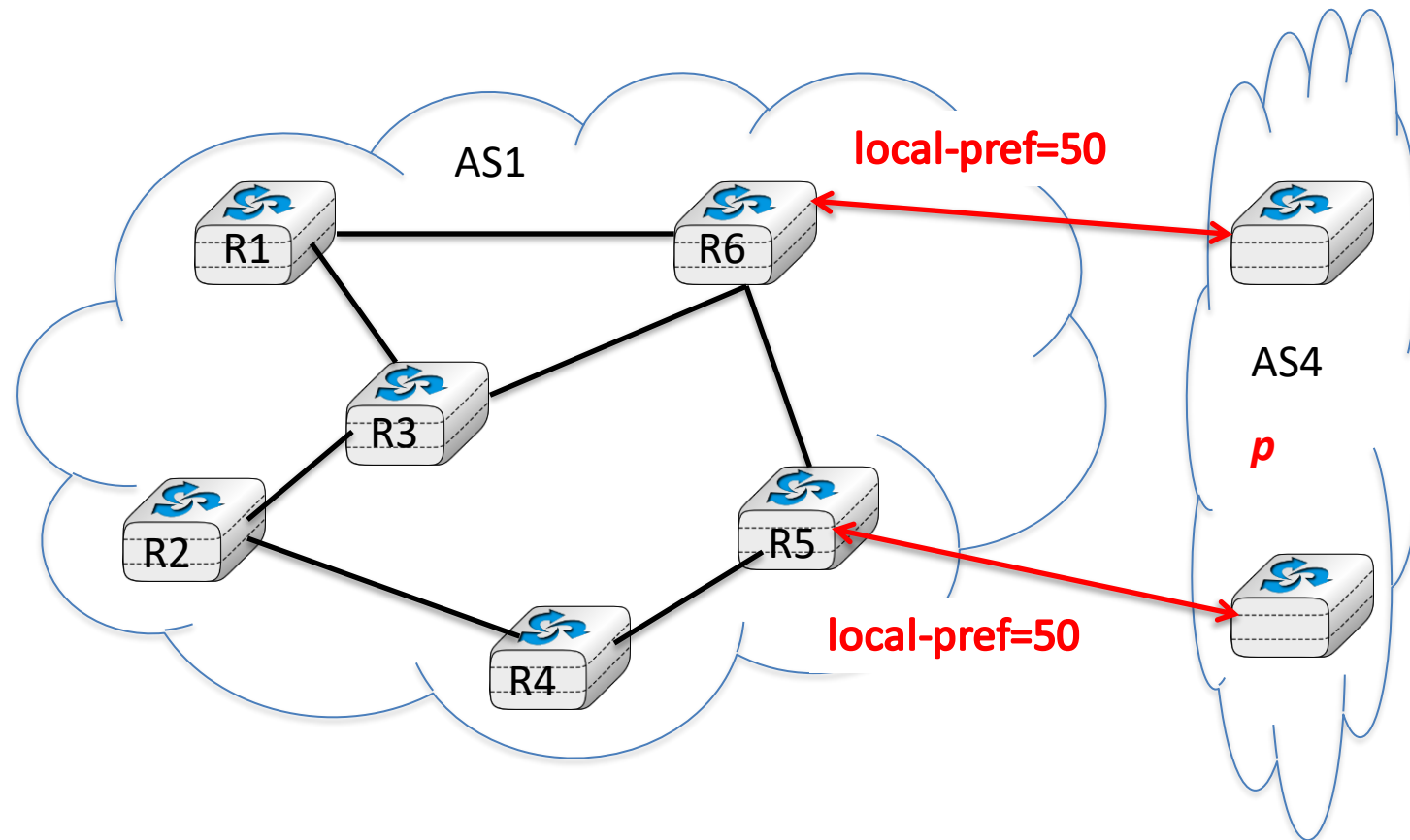
Question 1: What is the Next-Hop announced by R2 ? Justify your answer



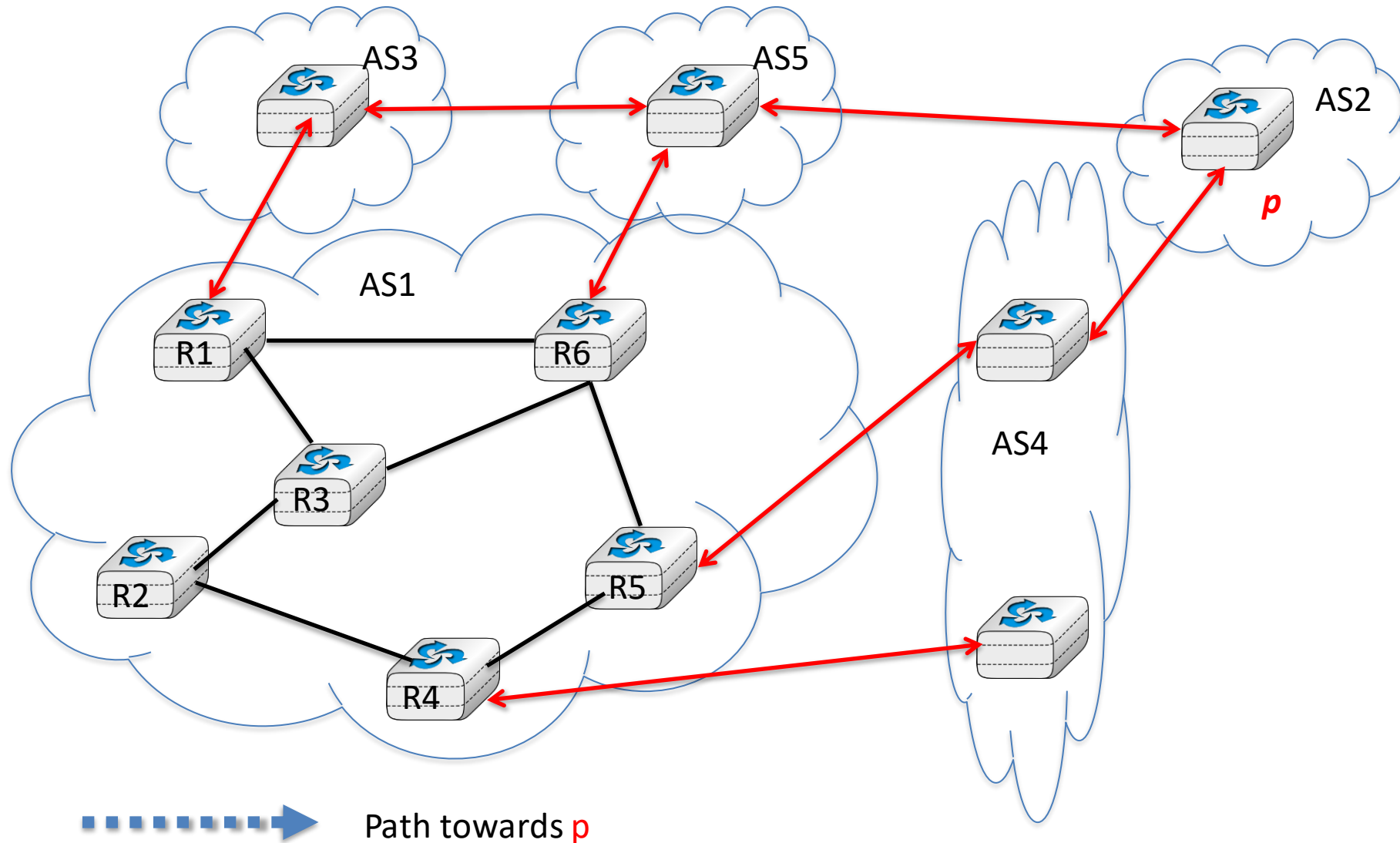
Question 2: BGP routes towards prefix p on *all* routers inside AS1 (full-mesh iBGP is running)



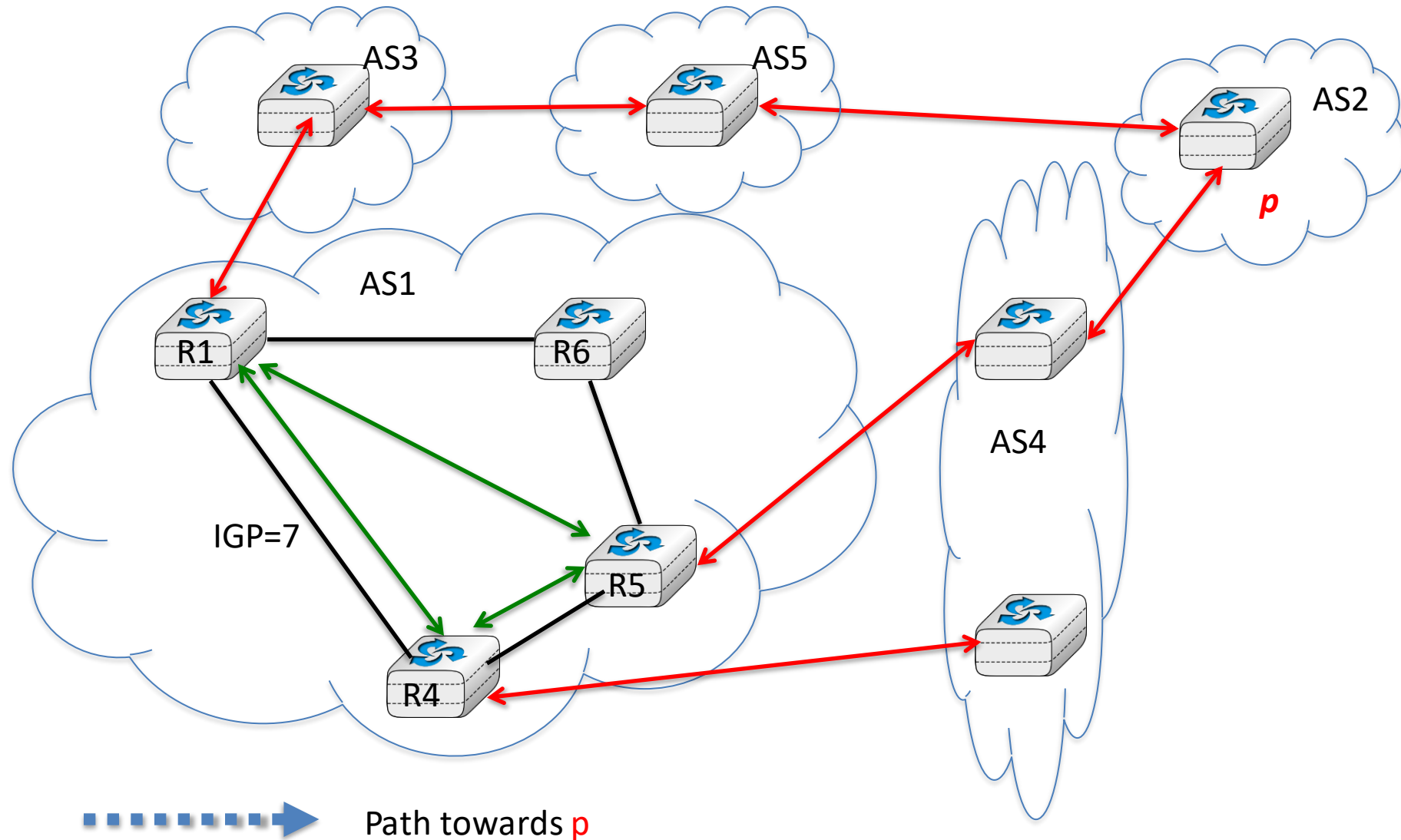
Question 3: BGP routes towards prefix p on *all* routers inside AS1 (full-mesh iBGP is running)



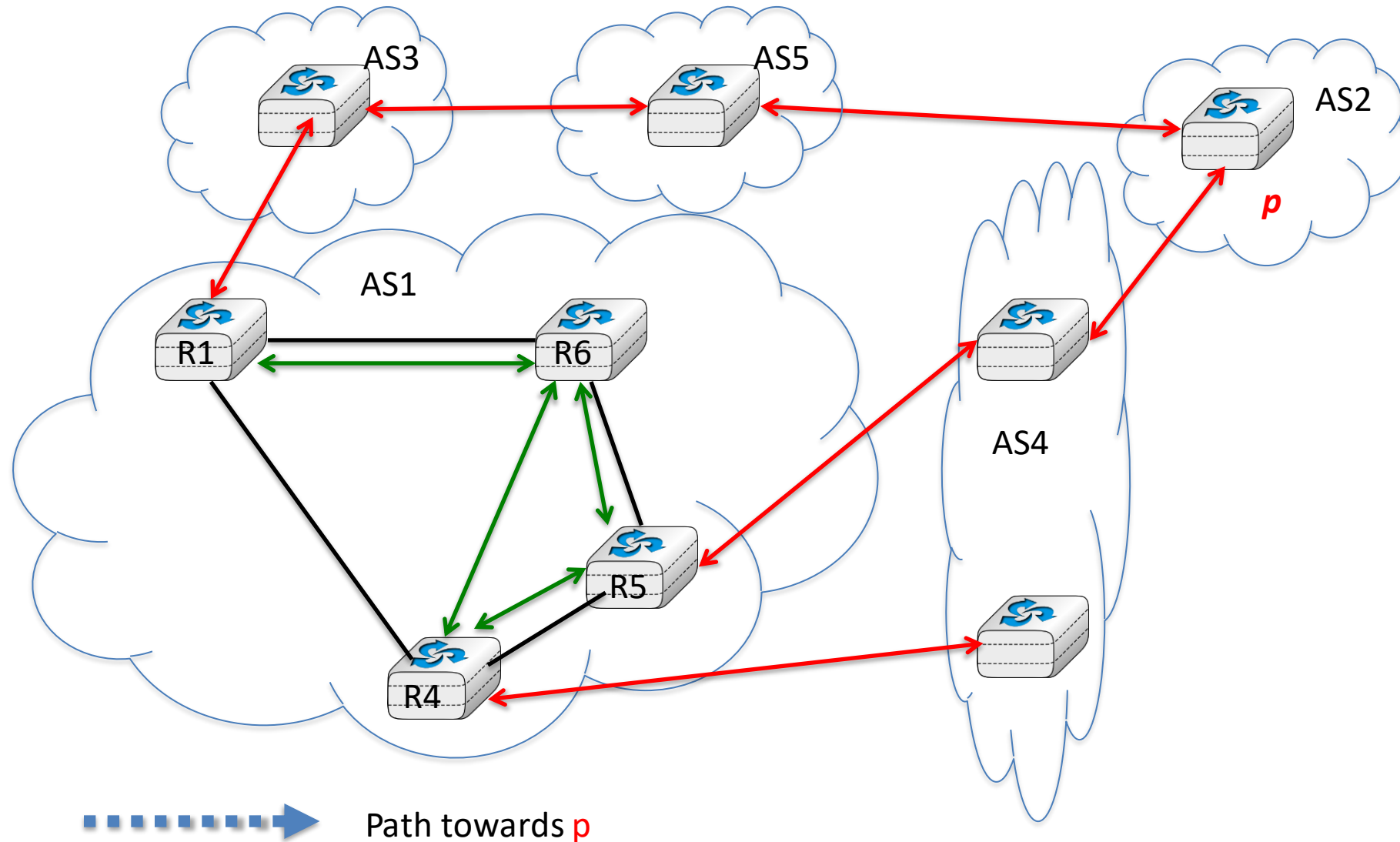
Question 4: BGP routes towards prefix p on all routers inside AS1



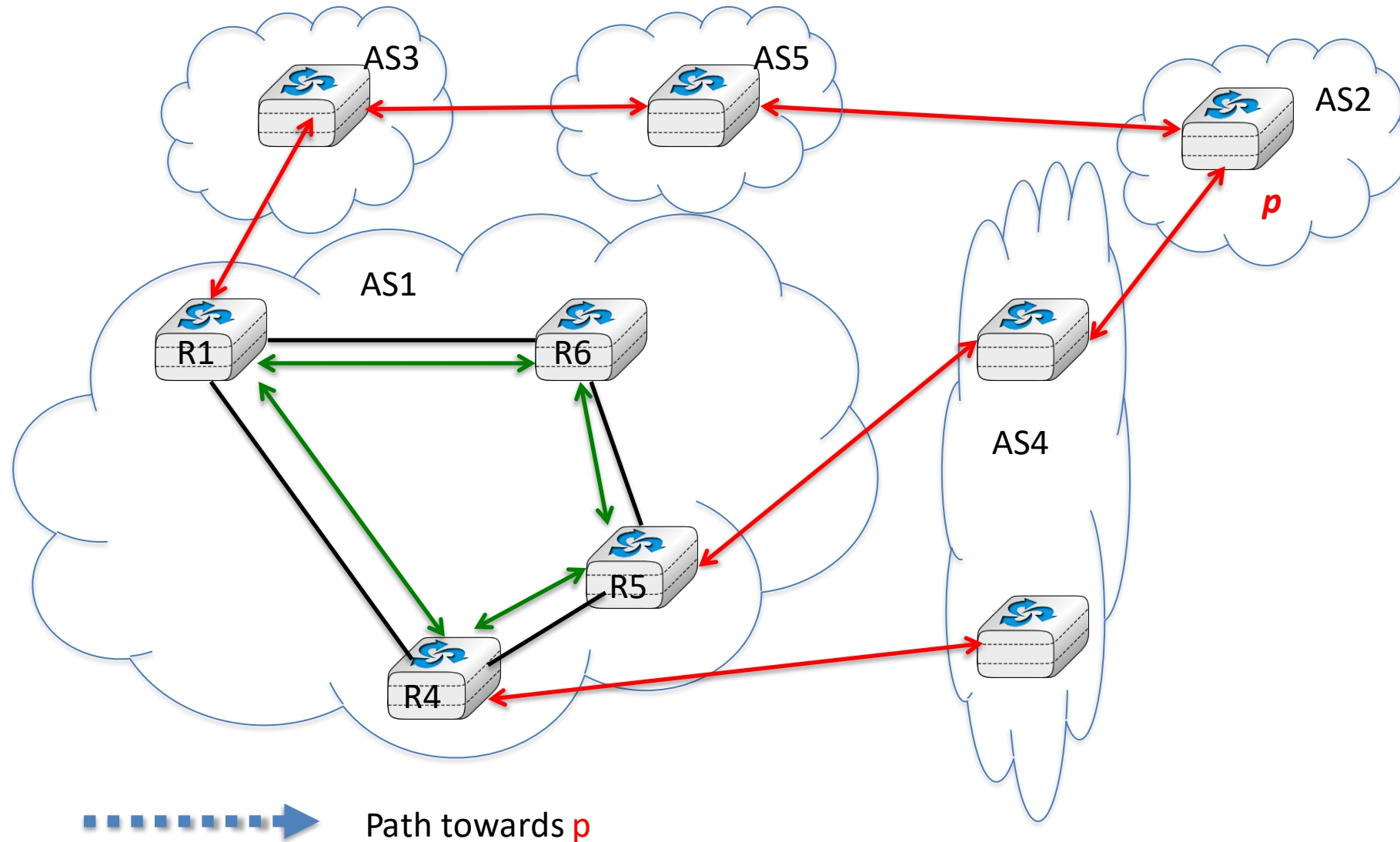
Question 5.1: What happens if iBGP sessions are missing (i.e. no full mesh) ?



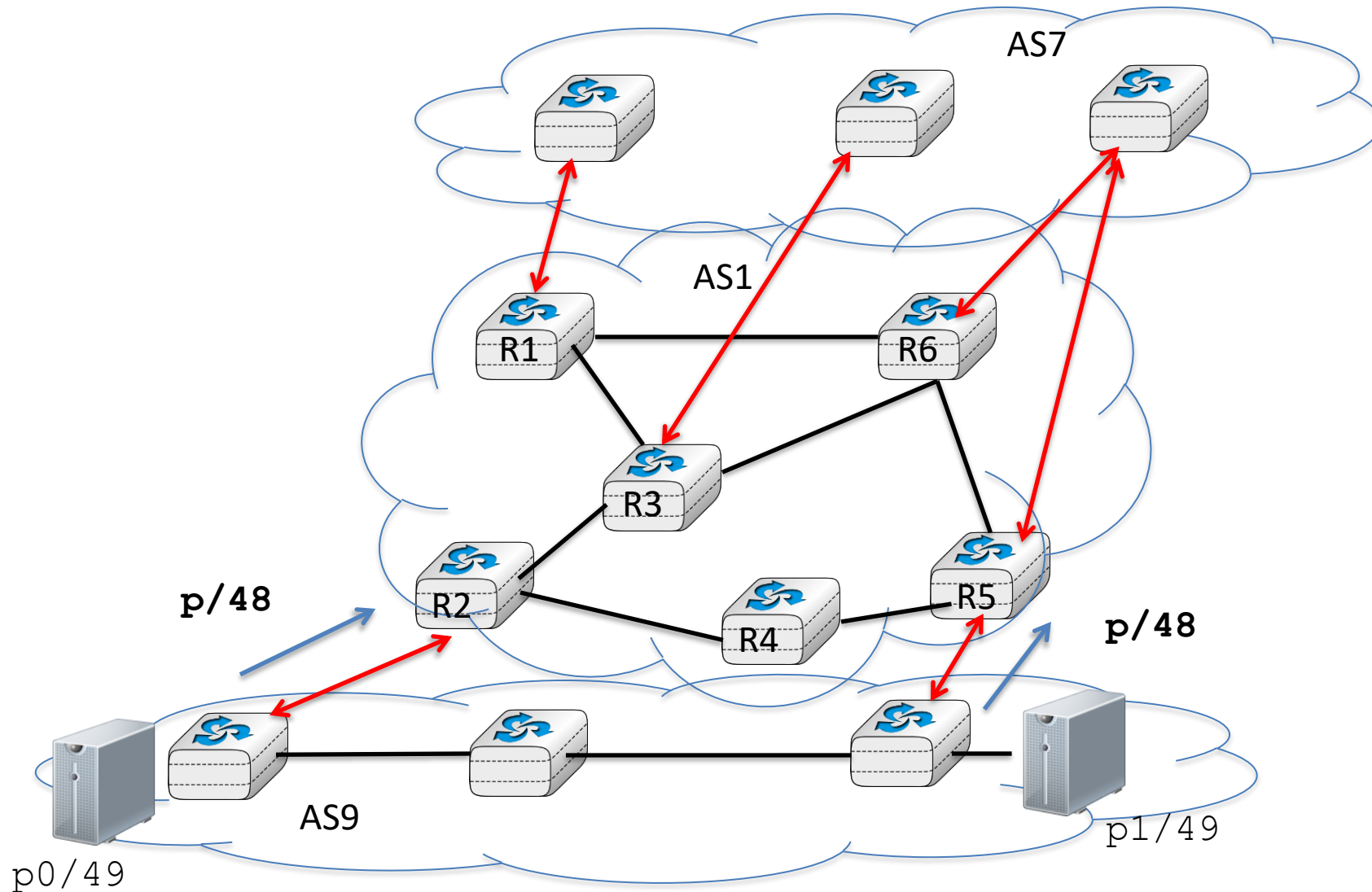
Question 5.2: What happens if iBGP sessions are missing (i.e. no full mesh) ?



Question 5.3: What happens if iBGP sessions are missing (i.e. no full mesh) ?



Question 6: What can AS9 do to distribute the load from AS1 on both links ? What happens then if one of the two links fails ?



Question 7: What are the routing tables for each router towards p3, p5 and p7 ?

