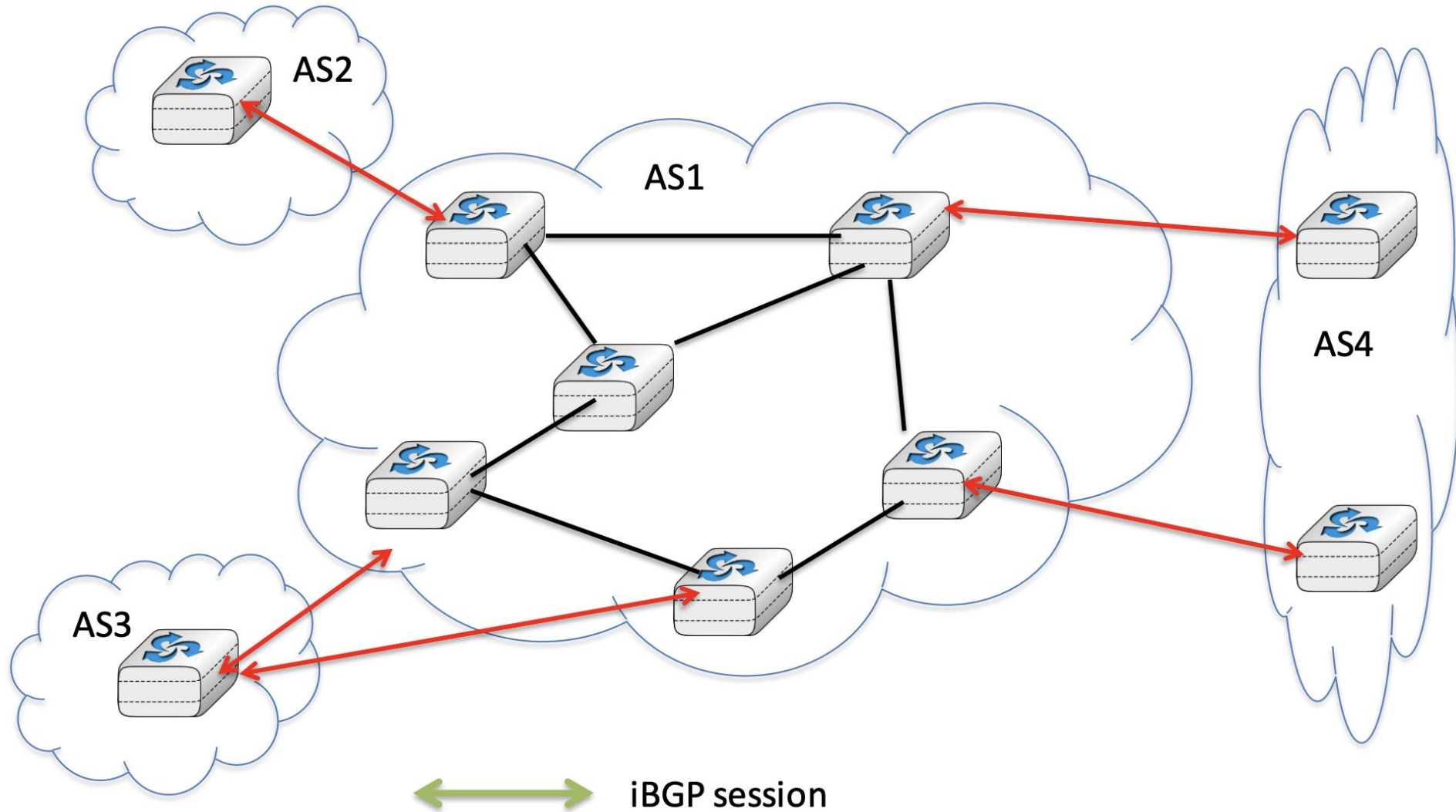


**TP 10 - BGP**

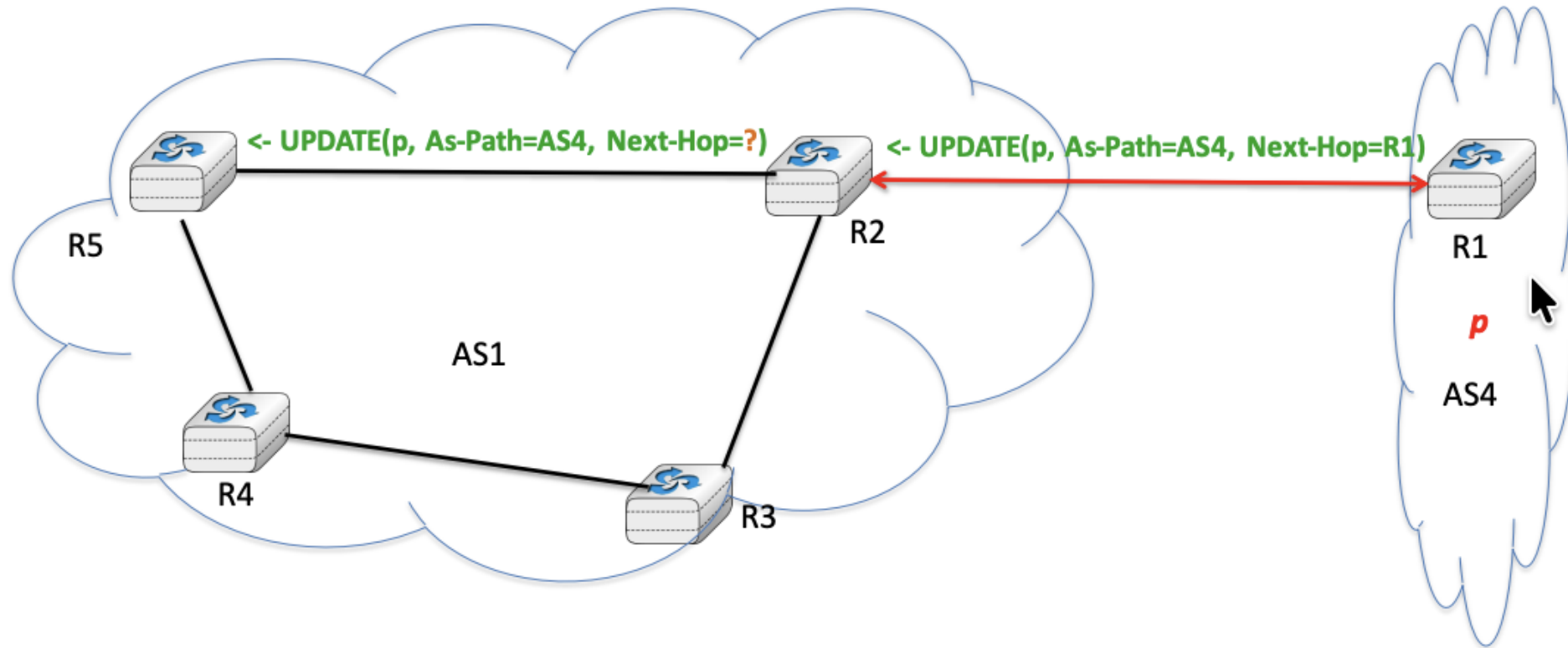
# BGP decision process

1. Ignore routes having 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 closest next-hop
7. Tie breaking rules: prefer route learned from the router with lowest router id

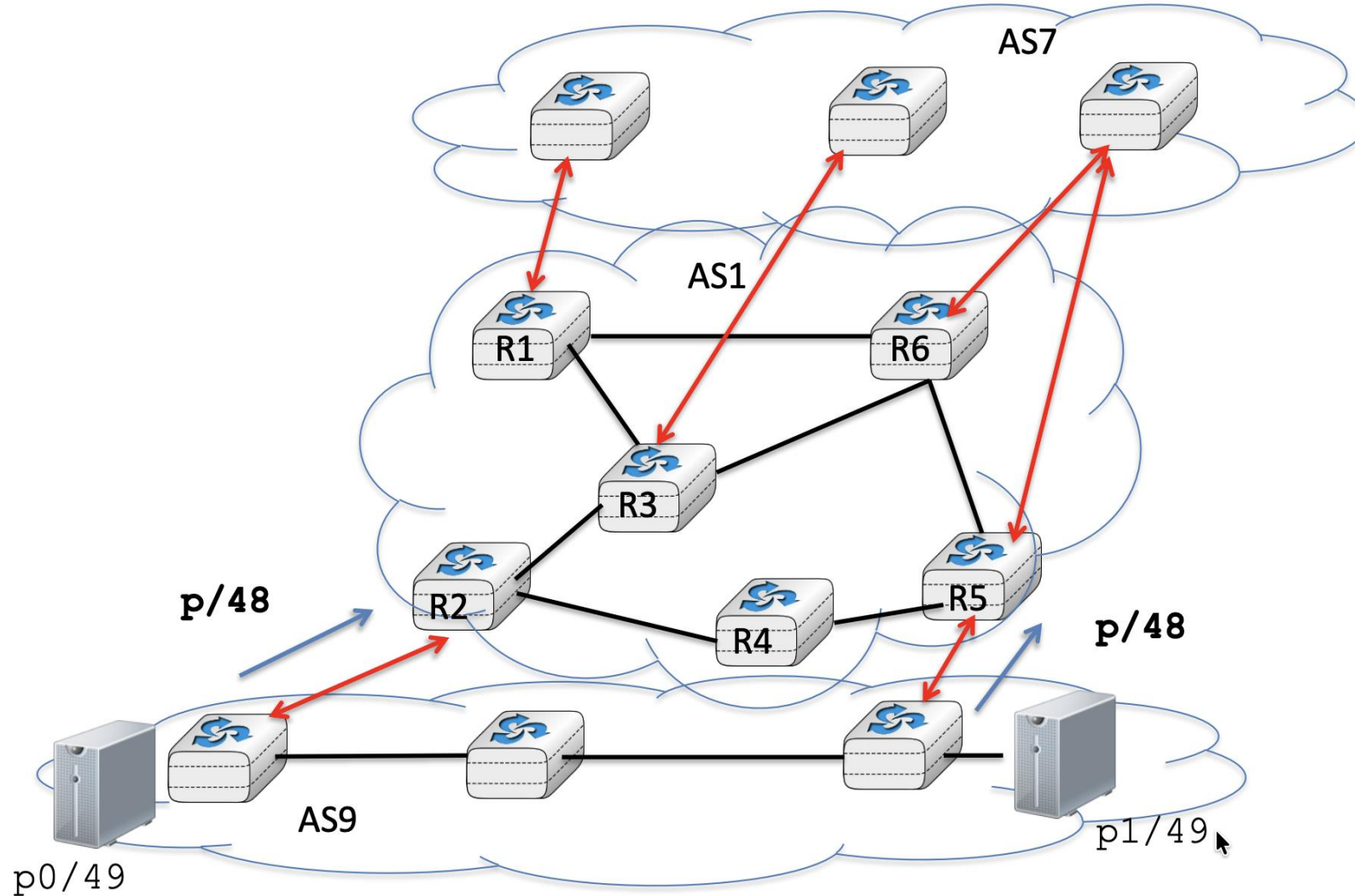
# Draw iBGP sessions in AS1



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

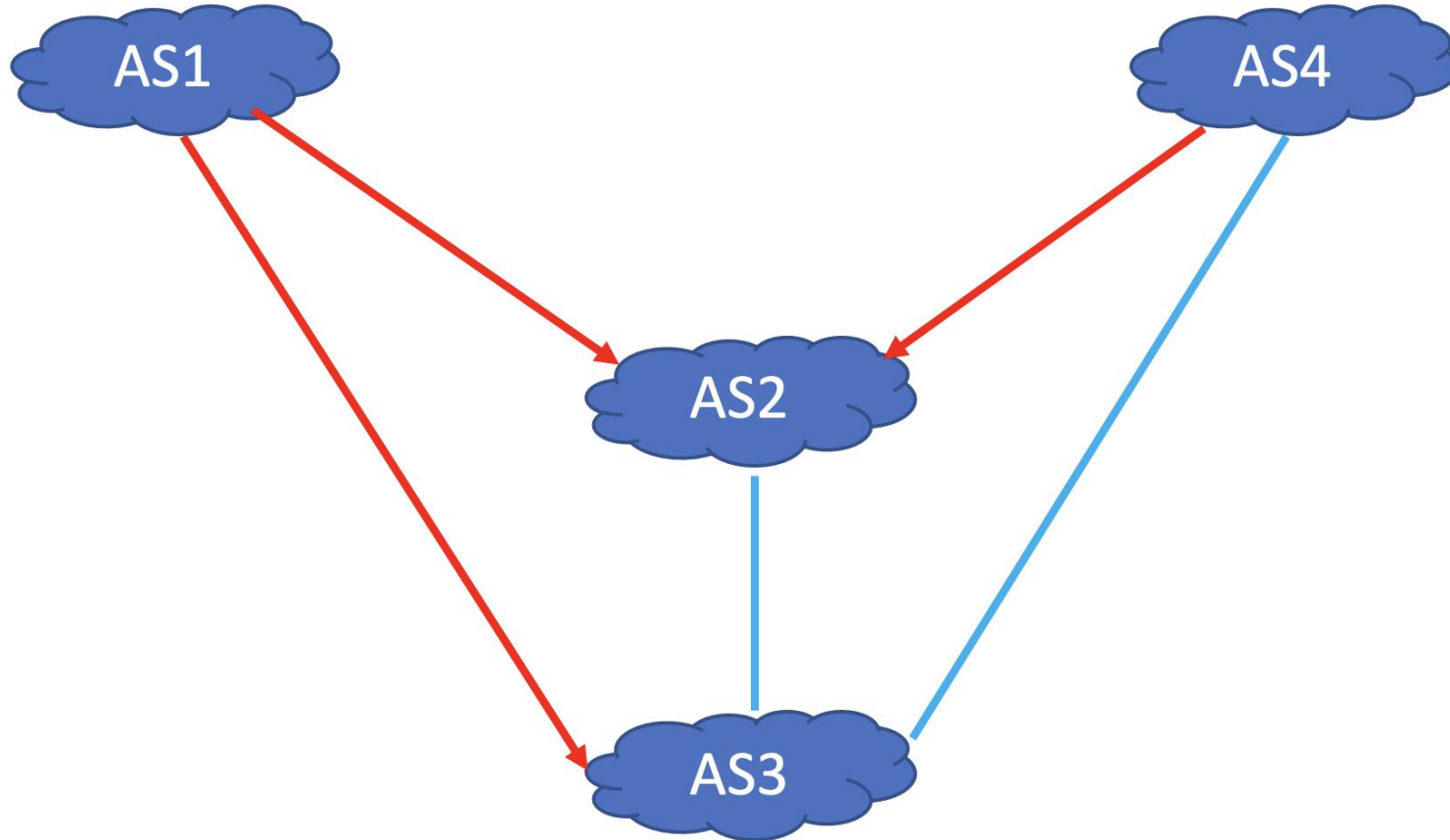


What can AS9 do to distribute the load from AS1 on both links ?  
What happens then if one of the two links fails





# What are the paths ?

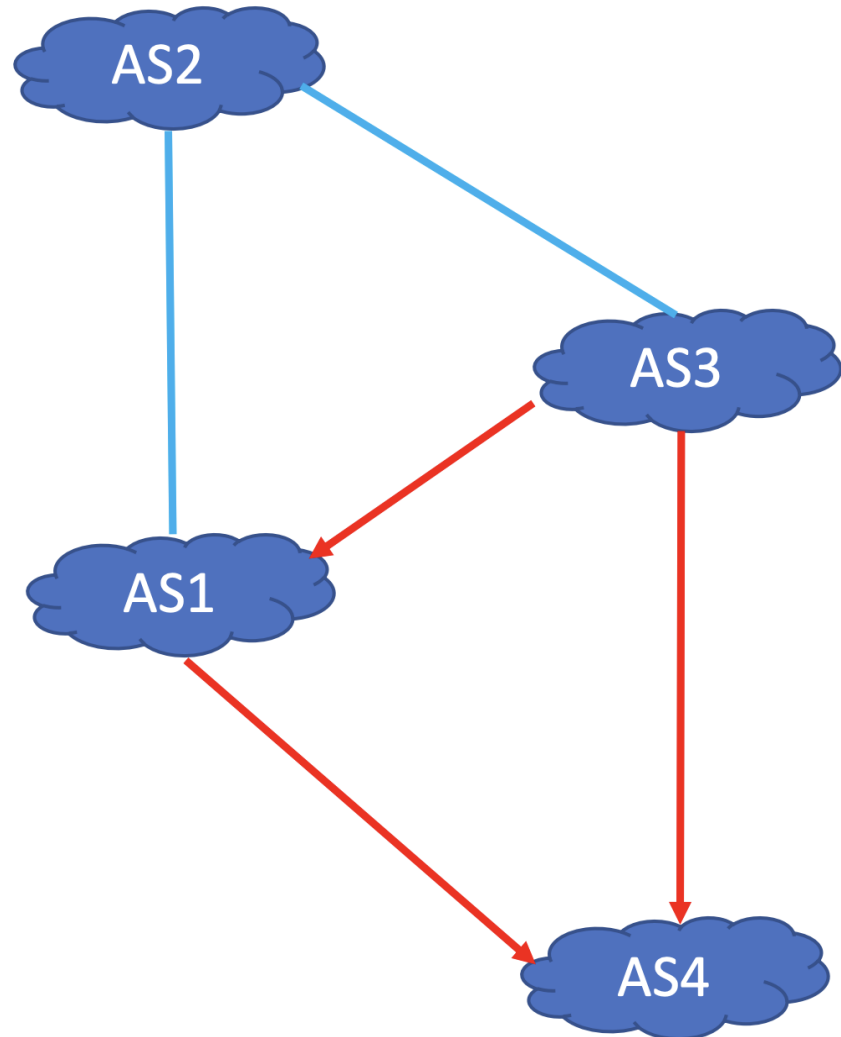


Customer  Provider

Peer  Peer

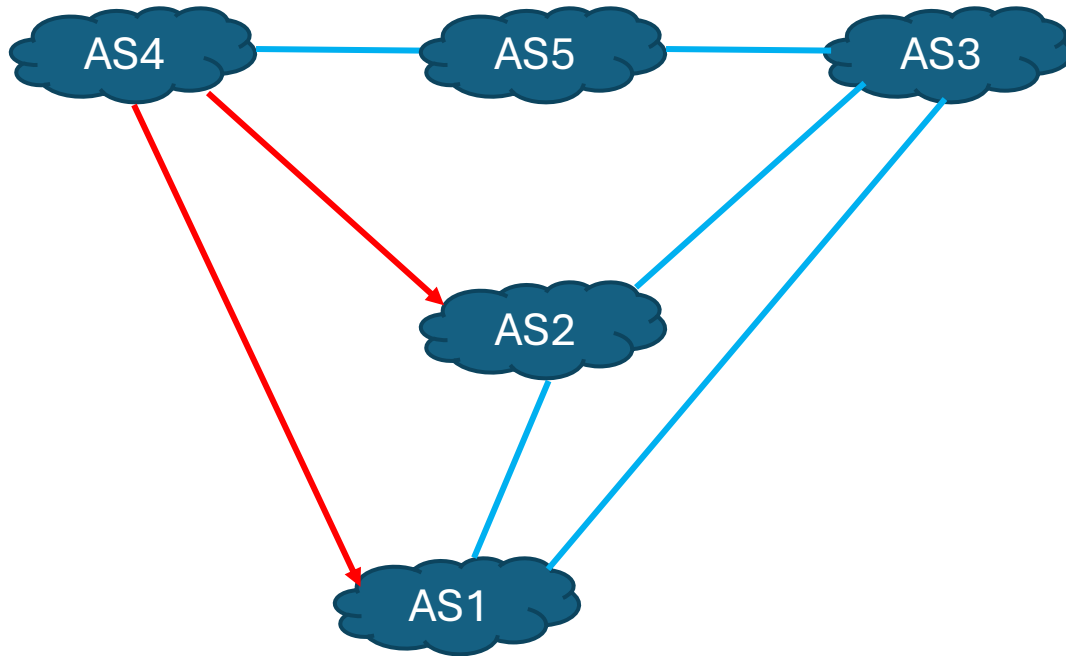
What are the paths?

- From AS1 to AS4
- From AS4 to AS2
- From AS4 to AS1



AS1 advertises prefix p1  
AS2 advertises prefix p2  
AS3 advertises prefix p3  
AS4 advertises prefix p4  
AS5 advertises prefix p5

Routing tables?  
Are all ASes capable of reaching the other ones?



AS1 advertises prefix p1  
AS2 advertises prefix p2  
AS3 advertises prefix p3  
AS4 advertises prefix p4  
AS5 advertises prefix p5

Routing tables?

Are all ASes capable of reaching the other ones?  
If you need to add only one peering link, what should it be?