

## Problem 1

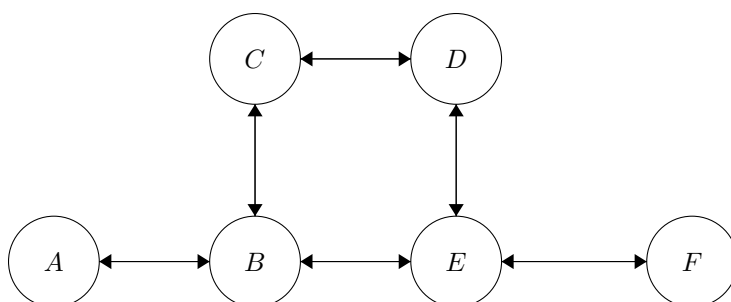
### Part 1

There are 7 routes that might be received.

### Part 2

When sending from  $A$  to  $B$ , the path will be  $A \rightarrow P \rightarrow^4 R \rightarrow^3 Q \rightarrow B$ . When sending from  $B$  to  $A$ , the path will be  $B \rightarrow Q \rightarrow^1 A$ .

## Problem 2



Such a situation might occur when  $A$  is looking to send data to  $F$ . In the case that a loop is discovered in a path, that path will be discarded by BGP in accordance with the RFC.

## Problem 9

Yes it should. If ISP B has a better route to some host via a different route, it will choose that route. But knowing that there are alternate routes in the event of a disconnection is good.