# Graph traversal:

## BFS

```
{ 'a' : ['b' , 'c'],
  'b' : ['c', 'd'],
  'c' : ['d'],
  'd' : ['c'],
  'e' : ['f'],
  'f' : ['c']
}
```
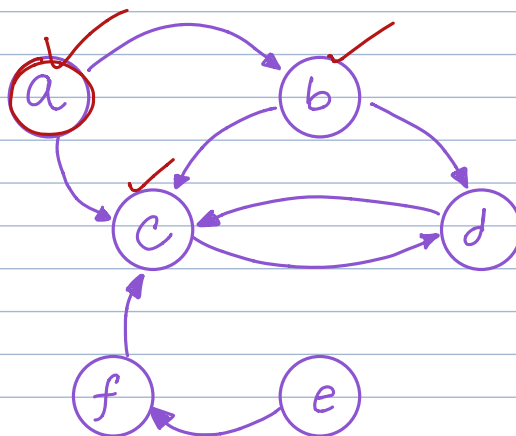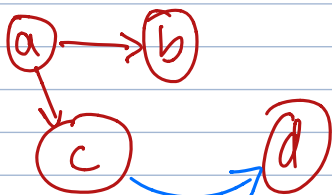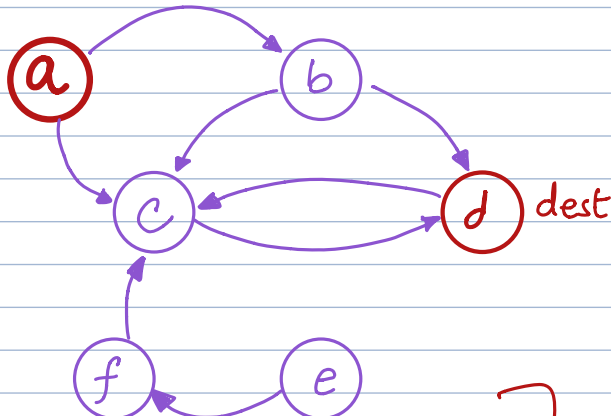
[ ~~d e~~ ]

[a, b, c, d]



q = ['a']

loop: ⟶ current

a

check if 'a' is already visited
continue.



src (on node a)

dest (on node d)



[a,b,d]

find(a, b)

find(b,b) → [b]

[a, b]

find(a, d)

find(b, d, [a])

find(d, d, [a,b])

[a,b,d]
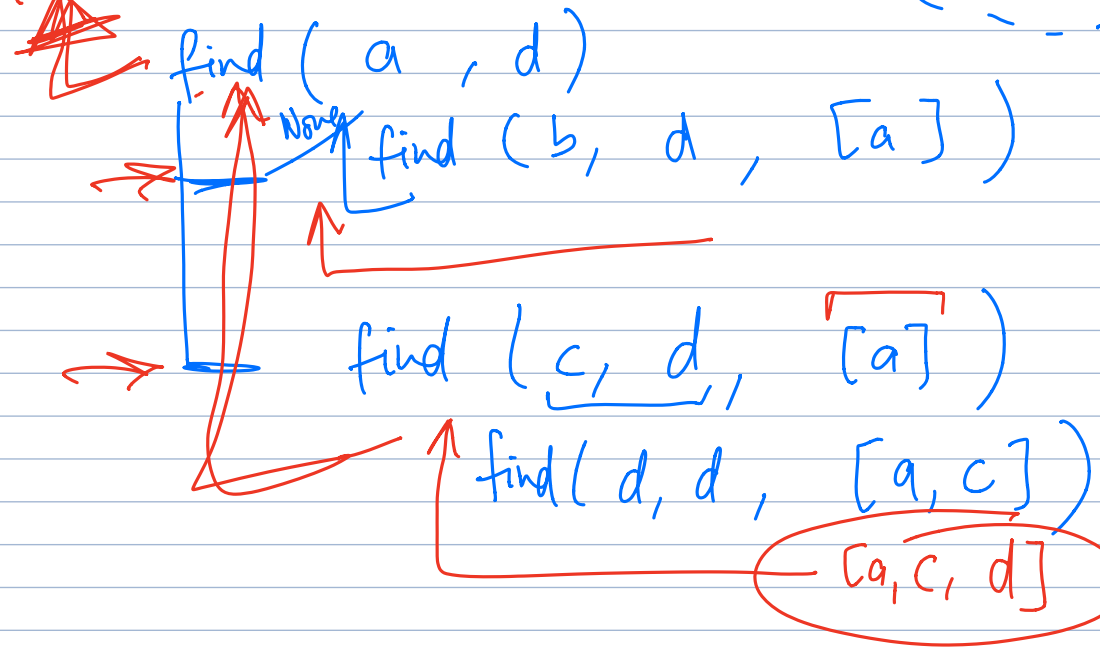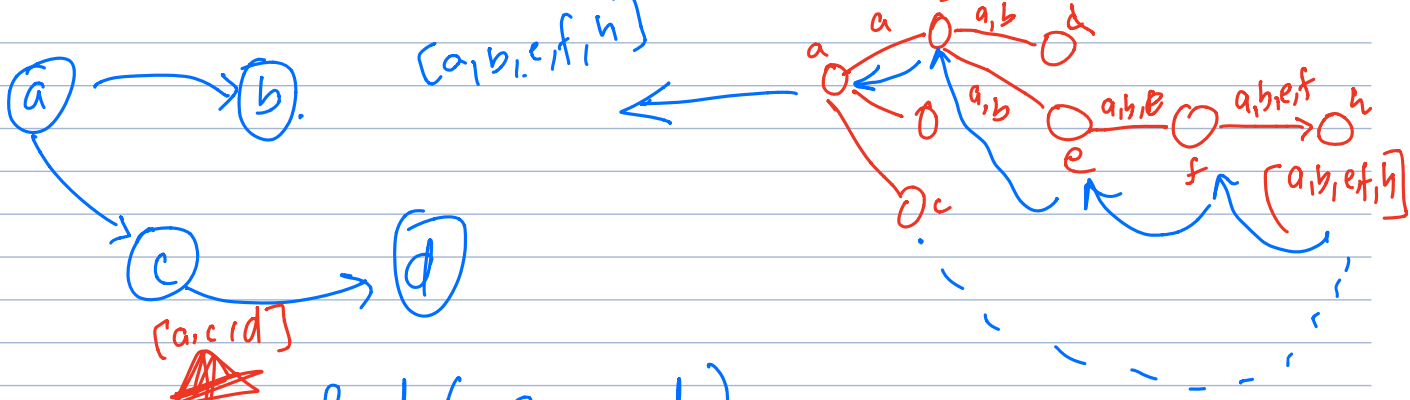
$[a,b,e,f,h]$

$[a,c,d]$

find $(a, d)$

None find $(b, d, [a])$

find $(c, d, [a])$
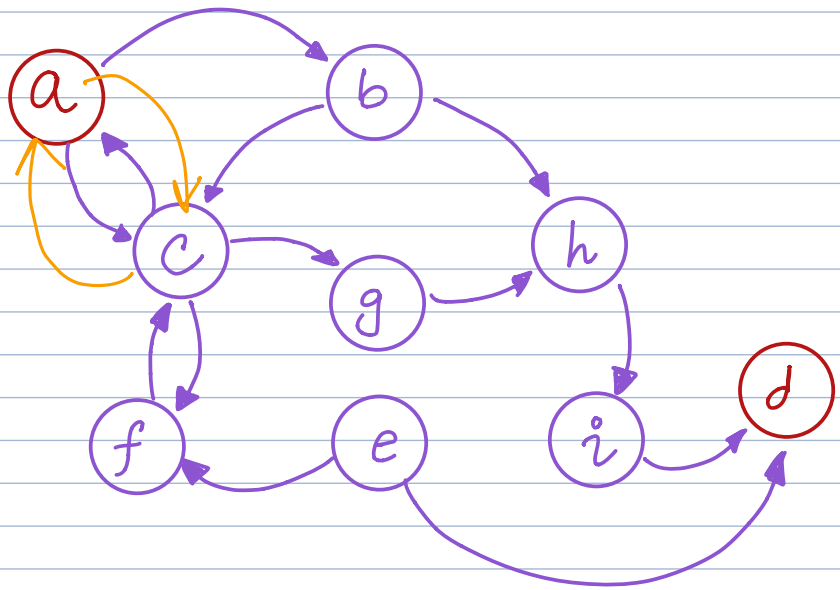
find $(d, d, [a,c])$

$[a, c, d]$

a :  [c , b]

c :  [a, g,f]

[a,c,g,h,i,d]

find( a, d, [])
    find ( c, d, [a])
    Now → find (a, d, [a, c])
                    ← None
    find ( g, d,  [a,c] )
        find( h, d,  [a, c, g])
            find ( i, d,  [a, c, g, h] )
                find( d, d,  [a, c, g, h, i])
                    [a, c, g, h, i, d]