

GRAPHS 1 - CONNECTIONS

Lab Description : Take a group of provided connections and create a map of all connections. Search this map with two provided values to see if a connection exists. All connections are bi-directional.

If A is connected to B and B is connected to C, is A connected to C? yes

Sample Data :

```
9
CA XY RS YS ST TB AX BD RJ
CD
PQ QX AX BX CX DX EX FX GX AB BC CD DE AE CE FD TG
PT
AE EI IO OU BC CD DF FG
AG
HI HJ HK KL KM KN MO MP MQ
HQ
AB CD EF GH CB ED GF HI
AI
TV XY AZ XT JK KL LT JX MN TN JL NO OP PT NX
VZ
AB BC CD DE EF FG GH HI IJ JA AC FZ
AZ
NO PQ RS TU OU RP AB CD EF GH AH CE NS FA GQ
DT
IX VX CX DX MX LX BY
IB
```

Files Needed ::

Graph.java
graph1.dat

Sample Output :

```
C connects to D == yes
P connects to T == yes
A connects to G == no
H connects to Q == yes
A connects to I == yes
V connects to Z == no
A connects to Z == yes
D connects to T == yes
I connects to B == no
```

algorithm help

```
check(String one, String two, String been)
{
    if a direct connection exists between one and two
        shut it down – we have a match
    else
    {
        get the current list of connections for one
        loop through all of the connections
        If you have not checked the current spot
            add current spot to been
            check to see a connection exists between spot and the destination ( recursive call )
        }
    }
}
```