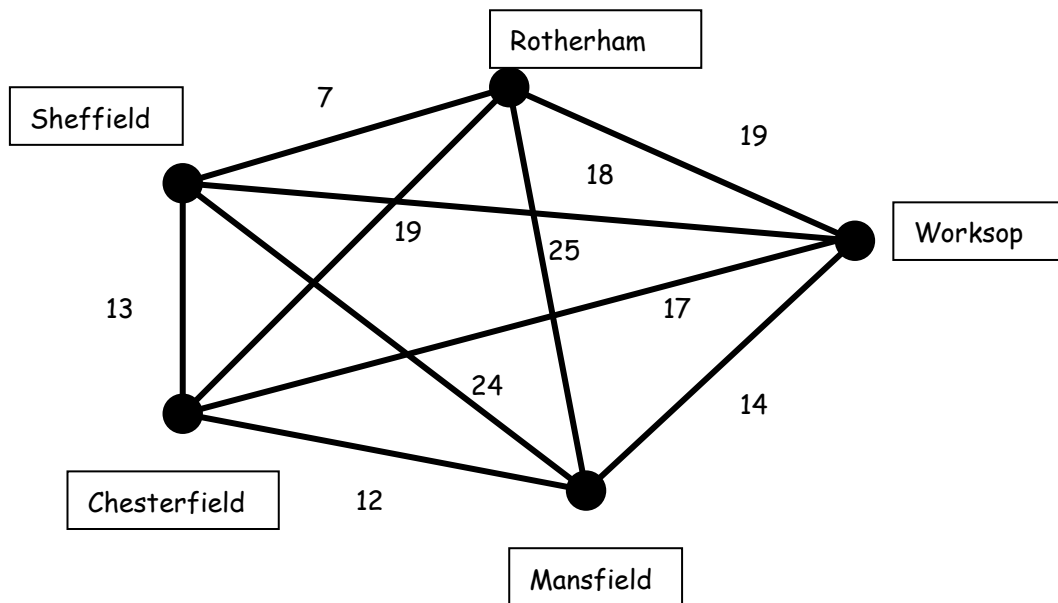


fs4u

Networks

‘How To’ Booklet 29

Networks



Activity

1 Copy and complete the table showing the shortest distances.

	Mansfield	Chesterfield	Sheffield	Rotherham	Worksop
Mansfield					
Chesterfield			13	19	
Sheffield					
Rotherham	25				
Worksop					

2 List all the ways you can get from Mansfield to Sheffield going through on extra town only.

Give the distance travelled in each case.

e.g. Mansfield \longrightarrow Worksop \longrightarrow Sheffield

Distance = $14 + 18 = 32$ miles

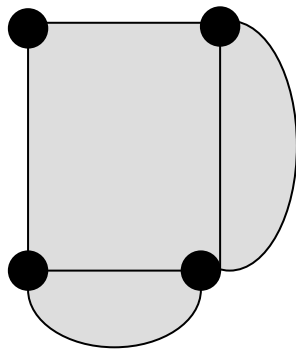
3 List all the ways you can get from Mansfield to Rotherham going through two extra towns.

Give the distance travelled in each case.

e.g. Mansfield \longrightarrow Worksop \longrightarrow Sheffield \longrightarrow Rotherham

Distance = $14 + 17 + 19 = 50$ miles

Nodes, Arcs and Regions



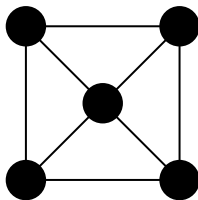
NODES are the black dots
ARCS are the lines between the black dots
REGIONS are the areas enclosed plus the one outside

NODES 4
ARCS 6
REGIONS 4

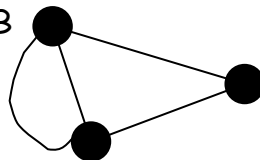
Activity

Copy and complete the table for the following networks.

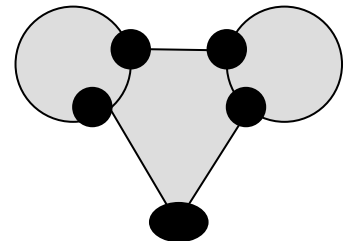
A



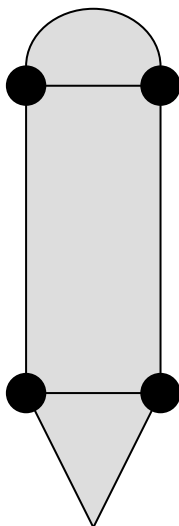
B



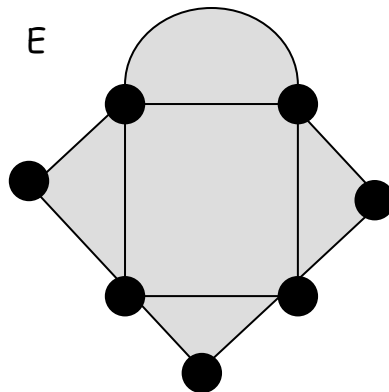
C



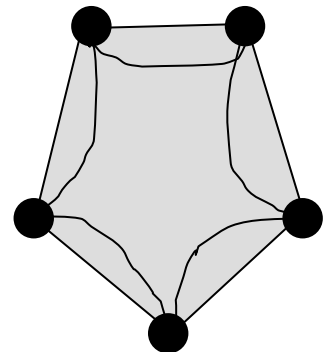
D



E



F



	NODES	ARCS	REGIONS
A	3	4	3
B			
C			
D			
E			
F			

Activity

Look at a map of the London Underground - available in most diaries and on the internet (<http://golondon.minigco.comm/msub8.htm>).

Examples

You can get from Kings Cross to Victoria using the Northern and Victoria Lines in the following way.

Using the Victoria Line

Kings Cross → Euston → Warren Street
Oxford Circus → Green Park → Victoria

If this line is closed. How would you do the journey?

Using the Piccadilly Line.

Kings Cross → Russell Square → Holborn →
Covent Garden → Leicester Square

Change to Northern Line

Leicester Square → Charing Cross → Embankment

Change to either the District or Circle Line

Embankment → Westminster → St James Park →
Victoria

Activity

Setting out as above, include all changes and specify which line you are using. How would you get between the following places.

1	Kings Cross & Covent Garden?
2	Kings Cross & Bond Street?
3	Bond Street & Earls Court?
4	Marble Arch & Embankment?
5	Make up your own destinations and get a fellow student to check them.