

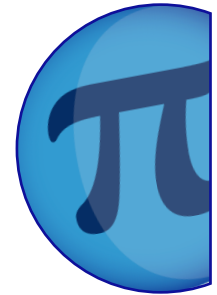


The Seven Bridges of Konigsberg

NAME:

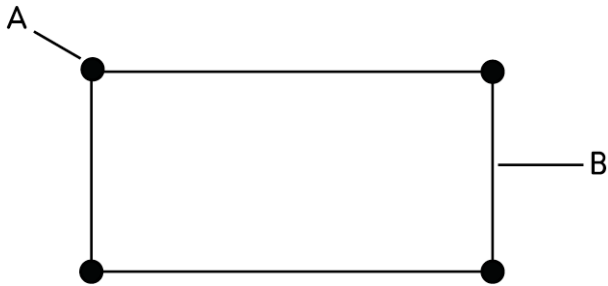
CLASS:

DATE:



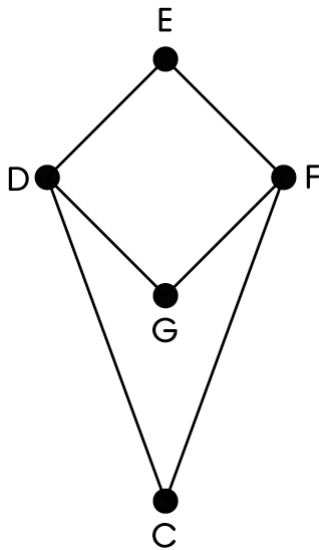
Basic

1) What do A and B represent on the following network diagram?

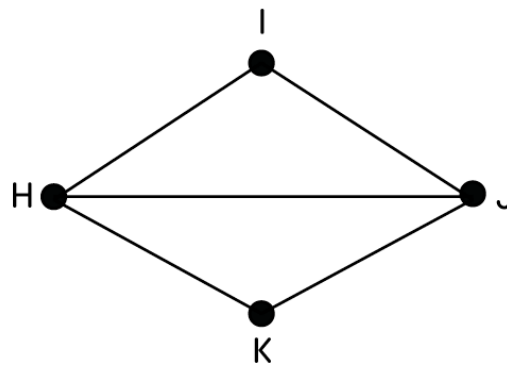


2) For each network diagram, find a pathway which passes through each vertex only once.

a)



b)

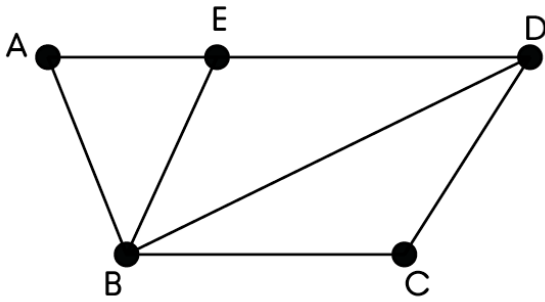




The Seven Bridges of Königsberg

Basic

3) State the degree of each vertex in this network diagram.



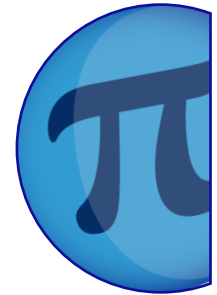


The Seven Bridges of Königsberg

NAME:

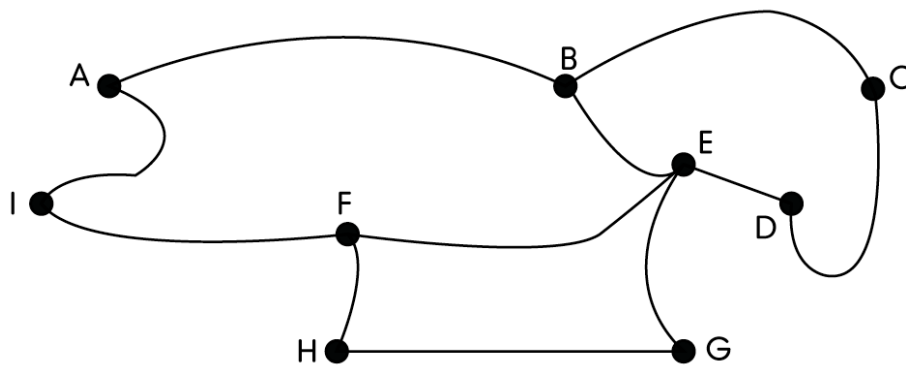
CLASS:

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Core

1) Make a network diagram to represent this map.

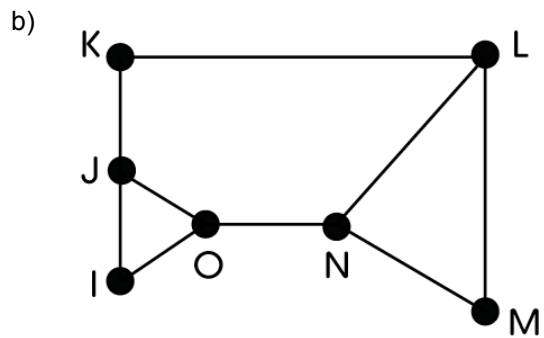
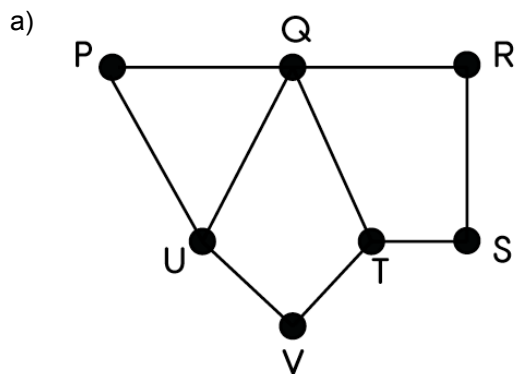




The Seven Bridges of Königsberg

Core

2) State the degree of each vertex in the following network diagrams.



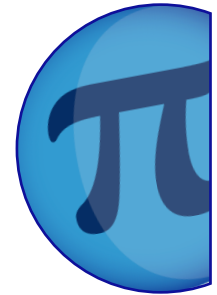


The Seven Bridges of Königsberg

NAME:

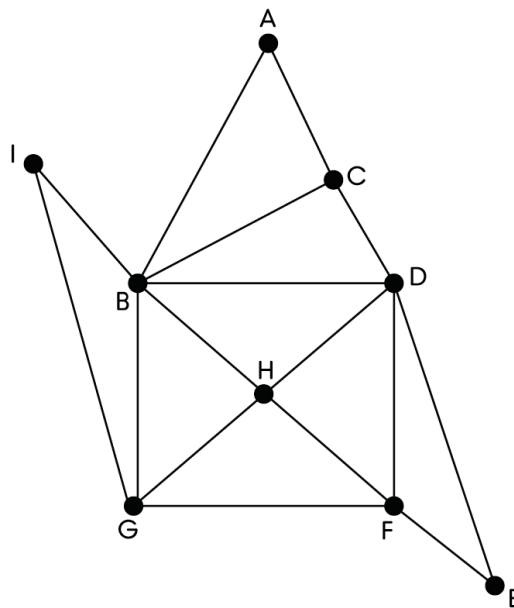
CLASS:

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Advanced

1) This network diagram represents the streets in a small town. The intersections of the streets are labelled. Sadie lost her phone while she was out on her bike. She wants to cycle round the town looking for it using a route that will cover each street once.



a) At which street intersections could such a route start and finish?

b) On this route, how many times will Sadie pass through junction:

(i) A

(ii) B

(iii) H

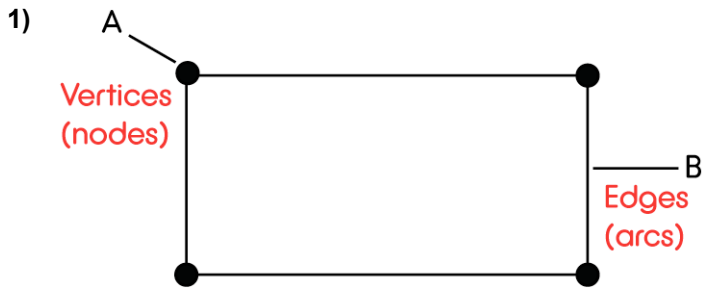
c) Give an example of an acceptable route which contains the whole Street I to E as part of it.



The Seven Bridges of Konigsberg

ANSWERS

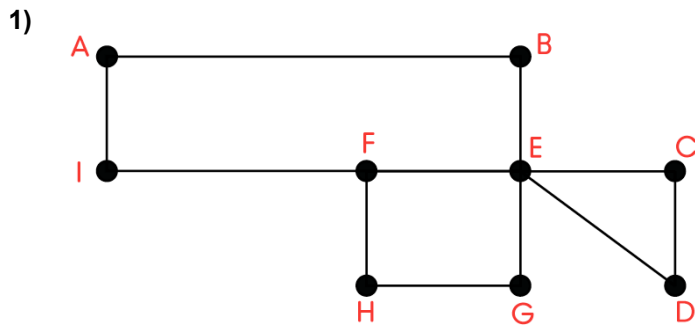
Basic



2) a) EDGFC b) HIJK

3) A = 2; B = 4; C = 2; D = 3; E = 3

Core



2) a) P=2, Q=4, R=2, S=2, T=3, U=3, V=2 b) I=2, J=3, K=2, L=3, M=2, N=3, O=3

Advanced

1) a) C and D

b) (1) 1; (2) 3; (3) 2

c) CBACDEFHBIGFDBGHD