

Mathematics 3 Tree



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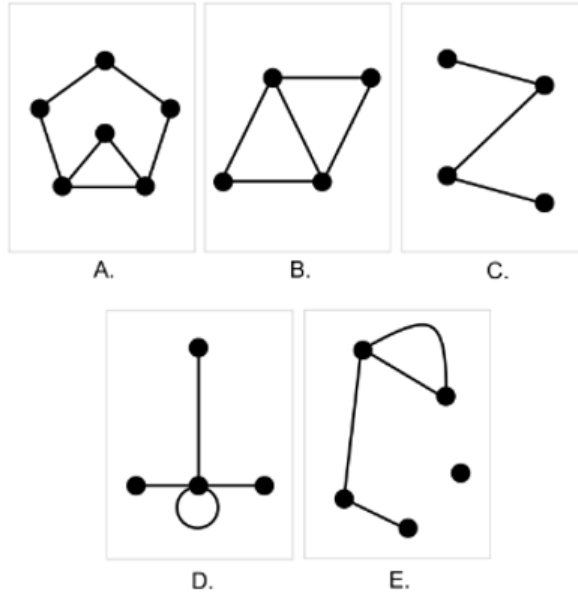
Class
2I

Department
Information Technology

Study Program
D4 Informatics Engineering

Task 1

Which of the following images is a tree graph?

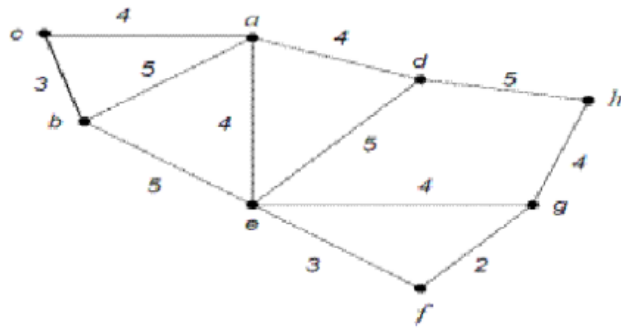


Answer

C. because to be considered as a tree, a graph must have these properties: any pair of vertices connected to each other must not have any same relation to another vertices except for their relation to each other, the number of edges must be 1 less than the number of vertex the graph has, and the relation between vertex must be undirected and interconnected to each other. in other word a graph must not have circuits within it self, must have edges $n-1$ to the number of vertex and have all vertex interconnected without direction of edges to be considered as a tree graph.

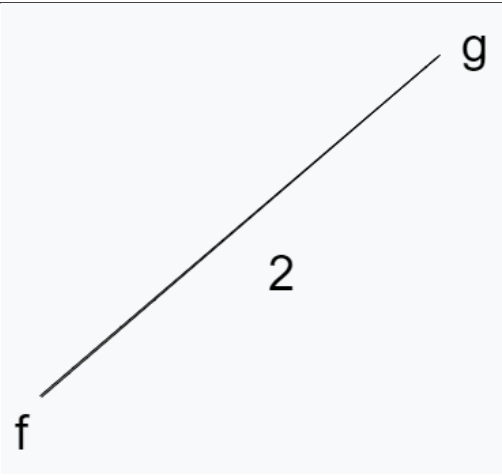
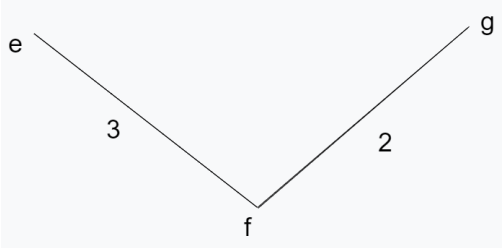
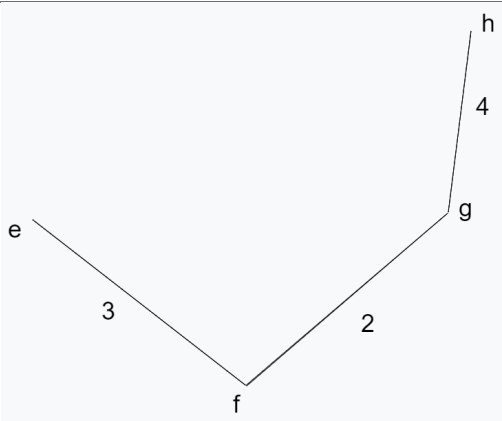
Task 2

Find the minimum spanning tree from the following image with the prim algorithm, continue the table below



Langkah	Sisi	Bobot	Pohon merintang
1	(f,g)	2	
2	(f,e)	3	

Answer

Langkah	sisi	bobot	pohon merintang
1	(f,g)	2	
2	(f,e)	3	
3	(g,h)	4	

4	(e,a)	4	
5	(a,d)	4	
6	(a,c)	4	

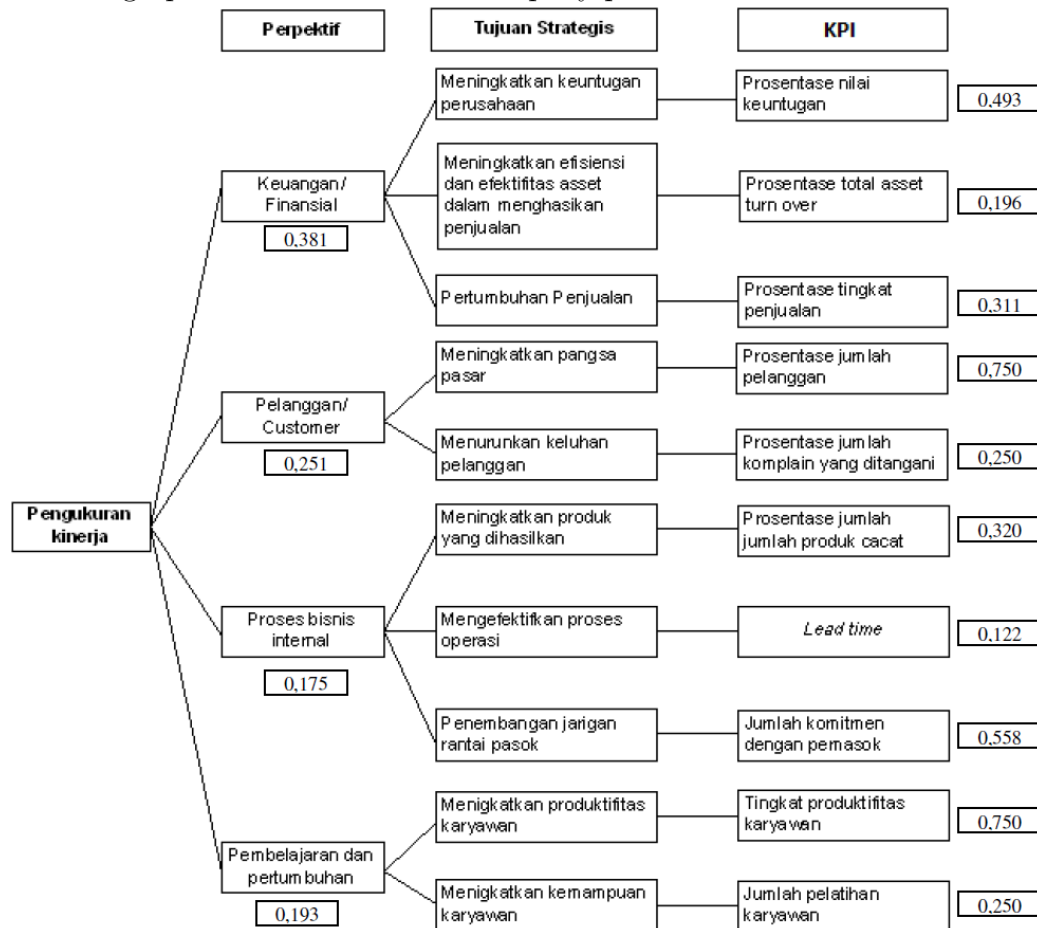
7	(c,b)	3	
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Task 3

Look for 1 example of a journal application of a Tree / Decision tree and draw a picture of the tree arrangement

Answer

in the journal article titled "Pemilihan Supplier Bahan Baku Kertas Dengan Model QCDFR dan Analytical Hierarchy Process (AHP)", a weighted rooted tree graph is used to measure company performance.



source: [Google Scholar](#)