

BETA INDEX

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Beta Index (β):

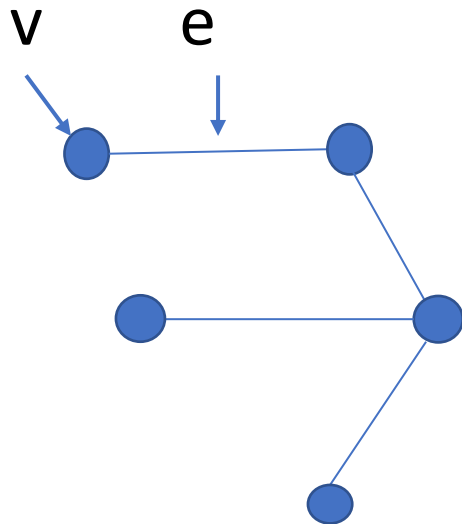
- The beta index is a very simple measure of connectivity, which can be found by dividing the total number of arcs in a network by the total number of nodes, thus:
- $\beta = \text{arcs} / \text{nodes} = e/v$

Where e = number of edges/links

v = number of vertices/nodes

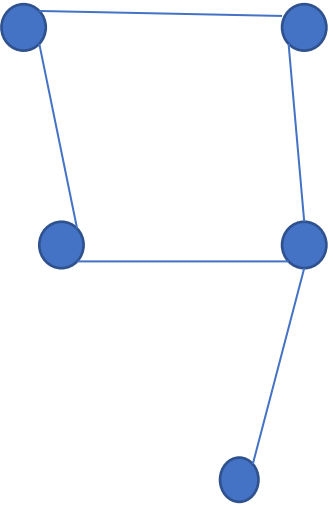
- This simple measure was developed by Kansky in 1963
- The greater the value of β , the greater the connectivity. As transport networks develop and become more efficient, the value of β should rise

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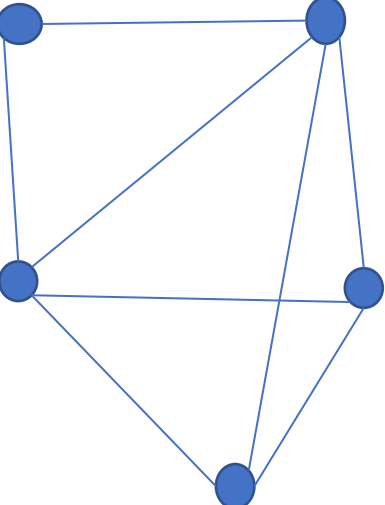


• $\beta = e/v = 4/5 = 0.8$

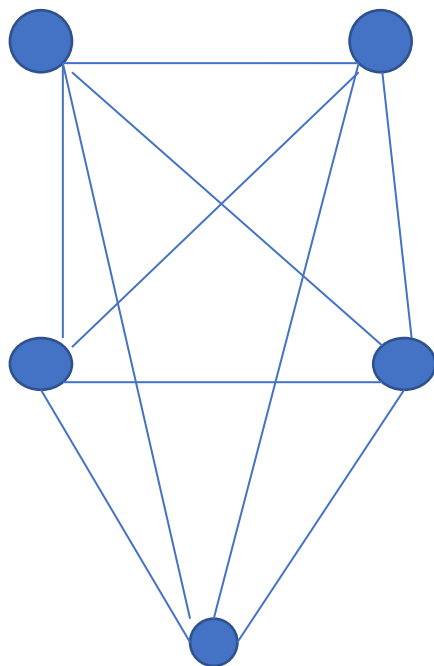
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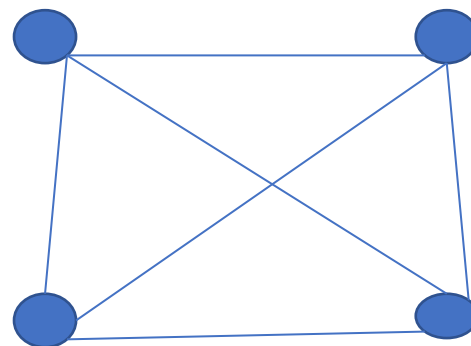
$\beta = e/v = 5/5 = 1.0$



$\beta = e/v = 8/5 = 1.6$



$$\beta = e/v = 10/5 = 2.0$$



$$\beta = e/v = 6/4 = 1.5$$