

Graph-Theoretic Property: *atis*PathConnectedComponentsSet

(Graph-theoretic properties are those properties that are part of the meta-theory and have been abducted from graph theory to be used as a tool to provide solutions concerning the theory. Those solutions may be assigned as values to components or relations of the theory and thereby become part of the theory.)

Path-connected components set, ${}_{pc}E$, =_{df} a set of components that are path-connected.

$${}_{pc}E =_{df} \mathfrak{X} = \{x \mid x \in \mathfrak{R} \subset \mathfrak{S}_0 \wedge \exists y \in \mathfrak{R} [x \neq y \wedge [(x,y) \in {}_{pc}E \vee (y,x) \in {}_{pc}E]]\}$$

Path-connected components set is a set of components, x ; such that, the components, x , are in a subset of the object-set, and there exist distinct components, y , of the subset, such that (x,y) are path-connected or (y,x) are path-connected.

