

No. _____
Date : _____
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function inDegree ($G : \text{graph}, v : \text{adrVertex}$) \rightarrow integer

kamus

$V_e : \text{adrVertex}$

$E : \text{adrEdge}$

degree : integer

Algoritma

degree = 0

$V_e = G.\text{first}$

while $V_e \neq \text{NIL}$ do

$E = V_e \rightarrow \text{firstEdge}$

while $E \neq \text{NIL}$ do

if $E \rightarrow \text{idVertex} == v \rightarrow \text{id}$ then

degree = degree + 1

endif

$E = E \rightarrow \text{next}$

endwhile

$V_e = V_e \rightarrow \text{next}$

endwhile

~~end function~~

return degree

end function



function outDegree (G : graph, v : adrVertex) \rightarrow integer

kamus

S : adrVertex

E : adrEdge

degree : integer

Algoritma

degree = 0

$S = G.first$

while $S \neq NIL$ AND $S \rightarrow id \neq v \rightarrow id$ do

$S = S \rightarrow next$

endwhile

$E = S \rightarrow first\ Edge$

while $E \neq NIL$ do

degree = degree + 1

$E = E \rightarrow next$

endwhile

return degree

endfunction

function degree ($G : \text{graph}, V : \text{adrVertex}$) \rightarrow integer
 kamus

inDegree ($\text{graph}, \text{adrVertex}$)

outDegree ($\text{graph}, \text{adrVertex}$)

Algoritma

return inDegree(G, V) + outDegree(G, V)

end function

function isSimpleGraph ($G : \text{graph}$) \rightarrow boolean
 kamus

$V : \text{adrVertex}$

$E : \text{~~adrEdge~~ adrEdge}$

Algoritma

$V = G \rightarrow \text{first}$

while $V \neq \text{NIL}$ do

$E = V \rightarrow \text{firstEdge}$

while $E \neq \text{NIL}$ do

if $V \rightarrow \text{id} == E \rightarrow \text{idVertex}$ then

return false

endif

$E = E \rightarrow \text{next}$

endwhile

$V = V \rightarrow \text{next}$

endwhile

return true

end function

