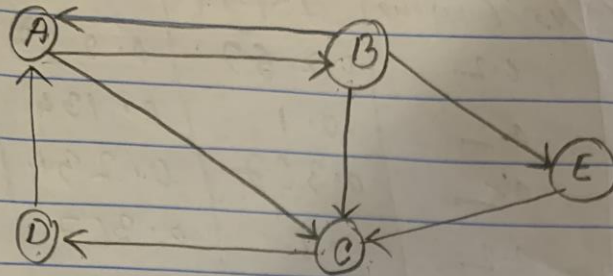


5. Compute the rank values for the nodes for the following network which is a modified version of the exercise solved earlier. Which is the highest ranked node now?



Equation: $R_a = 0.333 R_b + R_d$

$R_b = 0.5 R_a$

$R_c = 0.5 R_a + 0.333 R_b + R_e$

$R_d = R_c$

$R_e = 0.333 R_b$

influence matrix:

	From				
To	R_a	R_b	R_c	R_d	R_e
R_a	0	0.333	0	1	0
R_b	0.5	0	0	0	0
R_c	0.5	0.333	0	0	1
R_d	0	0	1	0	0
R_e	0	0.333	0		0

* First init value = $1/n = 1/5 = 0.2$

Variable	init value	1st It	2nd It	3rd It
Ra	0.2	0.267	0.233	0.412
Rb	0.2	0.1	0.134	0.117
Rc	0.2	0.367	0.234	0.194
Rd	0.2	0.2	0.367	0.234
Re	0.2	0.067	0.033	0.045

	4th It	5th It	6th It	7th It	8th It
Ra	0.271	0.267	0.335	0.286	0.301
Rb	0.206	0.136	0.132	0.167	0.143
Rc	0.2899	0.297	0.248	0.258	0.241
Rd	0.194	0.2899	0.297	0.246	0.258
Re	0.039	0.069	0.045	0.043	0.055

	9th It	10th It	11th It	12th It	
Ra	0.303	0.290	0.303	0.295	→ Highest
Rb	0.150	0.151	0.145	0.151	
Rc	0.253	0.247	0.244	0.249	
Rd	0.241	0.253	0.247	0.244	
Re	0.047	0.049	0.050	0.048	

I completed total 12th iteration but still did not get stabilize value till 12th iteration. Based on 12th iteration, Rank of Node A is highest.
0.295