Mean Classification Accuracy on fully-supervised node classification task with hidden dimensions set to 64, 128 & 256.

Dataset	#dimensions	Single_Feature							All_feature		Sub_feature		SOTA
		$\mathbf{X}$	$\mathbf{AX}$	$(\mathbf{A}+\mathbf{I})\mathbf{X}$	$\mathbf{A}^2\mathbf{X}$	$(\mathbf{A}+\mathbf{I})^2\mathbf{X}$	$\mathbf{A}^3\mathbf{X}$	$(\mathbf{A}+\mathbf{I})^3\mathbf{X}$	CAT	SUM	CAT	SUM	
Cora	d = 64	73.40	79.55	84.28	83.86	85.47	83.58	85.41	87.68	87.5	88.10	88.04	
	d = 128	73.84	79.93	84.56	85.85	86.94	85.05	86.23	87.76	87.92	88.19	**88.43**	88.49
	d=256	74.06	82.25	85.97	86.27	87.54	85.67	86.86	87.7	87.68	88.09	88.41	
Citeseer	d = 64	71.66	69.10	73.53	72.38	74.07	70.55	73.92	77.08	77.09	77.52	77.43	
	d = 128	71.94	70.74	73.96	73.70	74.58	71.42	74.28	77.35	77.04	77.70	77.63	77.99
	d = 256	72.54	71.80	76.67	75.02	76.53	72.77	75.36	77.35	77.11	**77.86**	77.74	
Pubmed	d = 64	87.79	81.77	88.27	84.70	88.06	83.06	86.63	89.75	89.55	89.88	89.83	
	d = 128	87.93	81.90	88.26	84.84	88.09	83.01	86.66	89.82	89.58	89.92	89.86	90.30
	d = 256	88.01	81.89	88.31	84.86	88.08	83.02	86.74	89.81	89.64	**89.97**	89.89	
Chameleon	d = 64	46.05	77.74	71.22	76.07	71.77	75.26	71.62	75.61	72.25	78.59	78.55	
	d = 128	46.07	77.74	71.40	76.11	71.42	76.07	71.86	75.76	71.4	78.99	77.98	66.47
	d = 256	46.09	77.63	71.25	76.77	71.07	76.2	72.58	76.77	70.81	**79.01**	77.63	
Wisconsin	d = 64	87.45	63.13	58.03	62.54	52.94	60.00	51.76	85.09	79.8	87.84	88.62	
	d = 128	88.03	62.54	57.84	62.15	52.35	58.82	51.17	85.29	82.94	88.43	88.04	86.98
	d = 256	88.03	62.54	58.03	61.96	51.76	57.84	50.78	87.45	83.92	89.02	**89.22**	
Texas	d = 64	85.40	66.21	61.35	67.29	58.64	62.43	58.10	84.32	78.91	88.64	88.91	
	d = 128	86.21	67.02	61.62	67.56	58.64	61.62	57.83	84.32	78.91	88.38	88.11	86.49
	d = 256	85.94	67.83	61.08	67.29	58.91	61.35	58.10	86.48	82.92	**88.65**	**88.65**	
Cornell	d = 64	85.94	58.64	63.51	58.64	61.62	58.91	60.27	81.89	72.25	86.21	86.75	
	d = 128	86.21	58.10	63.78	58.64	60.54	58.91	60.27	84.05	74.86	87.56	87.57	82.16
	d = 256	87.83	58.64	65.40	58.64	61.08	58.91	60.54	85.13	77.29	**88.11**	87.57	
Squirrel	d = 64	30.24	73.18	63.79	71.28	63.37	64.42	62.82	73.02	64.68	74.16	73.12	
	d = 128	30.30	72.83	63.66	71.49	64.43	64.49	63.59	72.55	62.50	73.87	72.78	49.03
	d = 256	30.66	72.54	63.28	71.91	65.36	65.24	63.77	72.63	59.88	**74.49**	72.76	
Actor	d = 64	35.32	25.47	29.22	25.38	27.95	25.27	26.43	35.15	35.39	35.63	35.67	
	d = 128	35.75	25.38	29.26	25.25	27.71	25.26	26.21	35.94	35.57	35.96	36.05	36.53
	d = 256	36.08	25.41	29.28	25.23	27.53	25.29	26.15	36.10	35.60	36.22	**36.31**	

Mean classification accuracy under `Sub_Feature` setting with and without using ReLU activation and d = 256.

Dataset	Sub_Feature (With ReLU)		Sub_Feature (No ReLU)		SOTA
	CAT	SUM	CAT	SUM	
Cora	88.09	88.41	88.49	**88.51**	88.49
Citeseer	**77.86**	77.74	77.72	77.81	77.99
Pubmed	**89.97**	89.89	89.52	89.54	90.30
Chameleon	**79.01**	77.63	76.95	76.69	66.47
Wisconsin	89.02	**89.22**	88.63	88.82	86.98
Texas	88.65	88.65	**89.73**	88.38	86.49
Cornell	88.11	87.57	**88.38**	87.84	82.16
Squirrel	**74.49**	72.76	70.45	69.94	49.03
Actor	36.22	**36.31**	36.11	35.8	36.53