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1 /Users/ryanzhang/miniconda3/envs/pytorch/bin/python  
    /Users/ryanzhang/Code/GraphKan/scripts_classifier/  
    classifiers.py  
2 Data(x=[1400, 512], edge_index=[2, 9800], edge_attr=  
    =[9800], y=[1400], test_mask=[1400], train_mask=[  
    1400], val_mask=[1400])  
3 Epoch: 001, Loss: 2.0069, Train Acc: 0.3321, Val  
    Acc: 0.3429, Test Acc: 0.3271  
4 Epoch: 002, Loss: 7.4983, Train Acc: 0.3321, Val  
    Acc: 0.3429, Test Acc: 0.3271  
5 Epoch: 003, Loss: 13.3577, Train Acc: 0.3321, Val  
    Acc: 0.3429, Test Acc: 0.3271  
6 Epoch: 004, Loss: 14.1314, Train Acc: 0.3464, Val  
    Acc: 0.3429, Test Acc: 0.3271  
7 Epoch: 005, Loss: 12.9065, Train Acc: 0.3661, Val  
    Acc: 0.3429, Test Acc: 0.3300  
8 Epoch: 006, Loss: 9.1435, Train Acc: 0.4857, Val  
    Acc: 0.4286, Test Acc: 0.4243  
9 Epoch: 007, Loss: 4.4282, Train Acc: 0.4857, Val  
    Acc: 0.4357, Test Acc: 0.4329  
10 Epoch: 008, Loss: 4.0392, Train Acc: 0.4857, Val  
    Acc: 0.4357, Test Acc: 0.4329  
11 Epoch: 009, Loss: 3.7997, Train Acc: 0.4857, Val  
    Acc: 0.4357, Test Acc: 0.4329  
12 Epoch: 010, Loss: 2.6850, Train Acc: 0.4857, Val  
    Acc: 0.4357, Test Acc: 0.4329  
13 Epoch: 011, Loss: 1.5752, Train Acc: 0.5946, Val  
    Acc: 0.5786, Test Acc: 0.5629  
14 Epoch: 012, Loss: 1.1940, Train Acc: 0.5946, Val  
    Acc: 0.5786, Test Acc: 0.5629  
15 Epoch: 013, Loss: 1.9069, Train Acc: 0.6107, Val  
    Acc: 0.5786, Test Acc: 0.5814  
16 Epoch: 014, Loss: 1.5803, Train Acc: 0.6143, Val  
    Acc: 0.6500, Test Acc: 0.5814  
17 Epoch: 015, Loss: 1.3397, Train Acc: 0.6518, Val  
    Acc: 0.6500, Test Acc: 0.6029  
18 Epoch: 016, Loss: 1.2637, Train Acc: 0.6571, Val  
    Acc: 0.6500, Test Acc: 0.6143  
19 Epoch: 017, Loss: 1.3128, Train Acc: 0.6768, Val  
    Acc: 0.6500, Test Acc: 0.6186  
20 Epoch: 018, Loss: 1.2903, Train Acc: 0.7125, Val
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20 Acc: 0.6643, Test Acc: 0.6229
21 Epoch: 019, Loss: 1.1967, Train Acc: 0.7125, Val
    Acc: 0.6643, Test Acc: 0.6414
22 Epoch: 020, Loss: 1.0326, Train Acc: 0.7125, Val
    Acc: 0.6643, Test Acc: 0.6414
23 Epoch: 021, Loss: 0.8234, Train Acc: 0.7143, Val
    Acc: 0.6643, Test Acc: 0.6657
24 Epoch: 022, Loss: 0.7775, Train Acc: 0.7143, Val
    Acc: 0.6714, Test Acc: 0.6657
25 Epoch: 023, Loss: 0.9146, Train Acc: 0.7143, Val
    Acc: 0.6714, Test Acc: 0.6657
26 Epoch: 024, Loss: 0.7639, Train Acc: 0.8125, Val
    Acc: 0.7214, Test Acc: 0.7314
27 Epoch: 025, Loss: 0.6400, Train Acc: 0.8125, Val
    Acc: 0.7714, Test Acc: 0.7457
28 Epoch: 026, Loss: 0.6838, Train Acc: 0.8286, Val
    Acc: 0.7929, Test Acc: 0.7600
29 Epoch: 027, Loss: 0.6983, Train Acc: 0.8464, Val
    Acc: 0.7929, Test Acc: 0.7600
30 Epoch: 028, Loss: 0.6857, Train Acc: 0.8464, Val
    Acc: 0.7929, Test Acc: 0.7643
31 Epoch: 029, Loss: 0.6443, Train Acc: 0.8750, Val
    Acc: 0.8000, Test Acc: 0.7900
32 Epoch: 030, Loss: 0.5734, Train Acc: 0.8982, Val
    Acc: 0.8071, Test Acc: 0.7929
33 Epoch: 031, Loss: 0.5034, Train Acc: 0.9071, Val
    Acc: 0.8071, Test Acc: 0.8029
34 Epoch: 032, Loss: 0.4751, Train Acc: 0.9071, Val
    Acc: 0.8071, Test Acc: 0.8029
35 Epoch: 033, Loss: 0.4709, Train Acc: 0.9071, Val
    Acc: 0.8143, Test Acc: 0.8029
36 Epoch: 034, Loss: 0.4449, Train Acc: 0.9071, Val
    Acc: 0.8143, Test Acc: 0.8200
37 Epoch: 035, Loss: 0.4011, Train Acc: 0.9071, Val
    Acc: 0.8214, Test Acc: 0.8243
38 Epoch: 036, Loss: 0.3719, Train Acc: 0.9071, Val
    Acc: 0.8214, Test Acc: 0.8243
39 Epoch: 037, Loss: 0.3570, Train Acc: 0.9071, Val
    Acc: 0.8214, Test Acc: 0.8357
40 Epoch: 038, Loss: 0.3320, Train Acc: 0.9357, Val
    Acc: 0.8429, Test Acc: 0.8429
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41 Epoch: 039, Loss: 0.2997, Train Acc: 0.9536, Val  
Acc: 0.8429, Test Acc: 0.8586  
42 Epoch: 040, Loss: 0.2718, Train Acc: 0.9571, Val  
Acc: 0.8571, Test Acc: 0.8643  
43 Epoch: 041, Loss: 0.2545, Train Acc: 0.9571, Val  
Acc: 0.8571, Test Acc: 0.8700  
44 Epoch: 042, Loss: 0.2428, Train Acc: 0.9571, Val  
Acc: 0.8714, Test Acc: 0.8743  
45 Epoch: 043, Loss: 0.2266, Train Acc: 0.9643, Val  
Acc: 0.8714, Test Acc: 0.8843  
46 Epoch: 044, Loss: 0.2064, Train Acc: 0.9661, Val  
Acc: 0.8714, Test Acc: 0.8843  
47 Epoch: 045, Loss: 0.1879, Train Acc: 0.9661, Val  
Acc: 0.8786, Test Acc: 0.8871  
48 Epoch: 046, Loss: 0.1740, Train Acc: 0.9661, Val  
Acc: 0.8857, Test Acc: 0.8957  
49 Epoch: 047, Loss: 0.1670, Train Acc: 0.9679, Val  
Acc: 0.8857, Test Acc: 0.8957  
50 Epoch: 048, Loss: 0.1555, Train Acc: 0.9750, Val  
Acc: 0.8857, Test Acc: 0.8986  
51 Epoch: 049, Loss: 0.1387, Train Acc: 0.9750, Val  
Acc: 0.9071, Test Acc: 0.9014  
52 Epoch: 050, Loss: 0.1275, Train Acc: 0.9768, Val  
Acc: 0.9071, Test Acc: 0.9014  
53 Epoch: 051, Loss: 0.1217, Train Acc: 0.9768, Val  
Acc: 0.9071, Test Acc: 0.9014  
54 Epoch: 052, Loss: 0.1135, Train Acc: 0.9839, Val  
Acc: 0.9071, Test Acc: 0.9014  
55 Epoch: 053, Loss: 0.1046, Train Acc: 0.9839, Val  
Acc: 0.9071, Test Acc: 0.9014  
56 Epoch: 054, Loss: 0.0982, Train Acc: 0.9839, Val  
Acc: 0.9071, Test Acc: 0.9014  
57 Epoch: 055, Loss: 0.0901, Train Acc: 0.9839, Val  
Acc: 0.9071, Test Acc: 0.9014  
58 Epoch: 056, Loss: 0.0829, Train Acc: 0.9857, Val  
Acc: 0.9071, Test Acc: 0.9071  
59 Epoch: 057, Loss: 0.0761, Train Acc: 0.9929, Val  
Acc: 0.9143, Test Acc: 0.9114  
60 Epoch: 058, Loss: 0.0708, Train Acc: 0.9946, Val  
Acc: 0.9143, Test Acc: 0.9143  
61 Epoch: 059, Loss: 0.0670, Train Acc: 0.9946, Val
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61 Acc: 0.9143, Test Acc: 0.9186
62 Epoch: 060, Loss: 0.0616, Train Acc: 0.9964, Val
    Acc: 0.9143, Test Acc: 0.9200
63 Epoch: 061, Loss: 0.0563, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
64 Epoch: 062, Loss: 0.0521, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
65 Epoch: 063, Loss: 0.0483, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
66 Epoch: 064, Loss: 0.0454, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
67 Epoch: 065, Loss: 0.0421, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
68 Epoch: 066, Loss: 0.0387, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
69 Epoch: 067, Loss: 0.0362, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
70 Epoch: 068, Loss: 0.0340, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
71 Epoch: 069, Loss: 0.0317, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
72 Epoch: 070, Loss: 0.0294, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9214
73 Epoch: 071, Loss: 0.0273, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9229
74 Epoch: 072, Loss: 0.0256, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9229
75 Epoch: 073, Loss: 0.0240, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9229
76 Epoch: 074, Loss: 0.0224, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9229
77 Epoch: 075, Loss: 0.0208, Train Acc: 0.9982, Val
    Acc: 0.9143, Test Acc: 0.9229
78 Epoch: 076, Loss: 0.0194, Train Acc: 1.0000, Val
    Acc: 0.9143, Test Acc: 0.9229
79 Epoch: 077, Loss: 0.0183, Train Acc: 1.0000, Val
    Acc: 0.9143, Test Acc: 0.9229
80 Epoch: 078, Loss: 0.0172, Train Acc: 1.0000, Val
    Acc: 0.9143, Test Acc: 0.9229
81 Epoch: 079, Loss: 0.0163, Train Acc: 1.0000, Val
    Acc: 0.9143, Test Acc: 0.9229
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82 Epoch: 080, Loss: 0.0153, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9229  
83 Epoch: 081, Loss: 0.0145, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9229  
84 Epoch: 082, Loss: 0.0137, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9229  
85 Epoch: 083, Loss: 0.0130, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9229  
86 Epoch: 084, Loss: 0.0124, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9229  
87 Epoch: 085, Loss: 0.0118, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9243  
88 Epoch: 086, Loss: 0.0112, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9257  
89 Epoch: 087, Loss: 0.0107, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9286  
90 Epoch: 088, Loss: 0.0102, Train Acc: 1.0000, Val  
Acc: 0.9143, Test Acc: 0.9314  
91 Epoch: 089, Loss: 0.0098, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
92 Epoch: 090, Loss: 0.0094, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
93 Epoch: 091, Loss: 0.0090, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
94 Epoch: 092, Loss: 0.0087, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
95 Epoch: 093, Loss: 0.0084, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
96 Epoch: 094, Loss: 0.0081, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
97 Epoch: 095, Loss: 0.0078, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
98 Epoch: 096, Loss: 0.0075, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
99 Epoch: 097, Loss: 0.0073, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
100 Epoch: 098, Loss: 0.0071, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
101 Epoch: 099, Loss: 0.0068, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9314  
102 Epoch: 100, Loss: 0.0066, Train Acc: 1.0000, Val
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102 Acc: 0.9214, Test Acc: 0.9314
103 Epoch: 101, Loss: 0.0064, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9314
104 Epoch: 102, Loss: 0.0063, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
105 Epoch: 103, Loss: 0.0061, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
106 Epoch: 104, Loss: 0.0059, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
107 Epoch: 105, Loss: 0.0058, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
108 Epoch: 106, Loss: 0.0056, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
109 Epoch: 107, Loss: 0.0055, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
110 Epoch: 108, Loss: 0.0054, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
111 Epoch: 109, Loss: 0.0053, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
112 Epoch: 110, Loss: 0.0052, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
113 Epoch: 111, Loss: 0.0051, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
114 Epoch: 112, Loss: 0.0050, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
115 Epoch: 113, Loss: 0.0049, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
116 Epoch: 114, Loss: 0.0048, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
117 Epoch: 115, Loss: 0.0047, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
118 Epoch: 116, Loss: 0.0046, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
119 Epoch: 117, Loss: 0.0045, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
120 Epoch: 118, Loss: 0.0044, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
121 Epoch: 119, Loss: 0.0044, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
122 Epoch: 120, Loss: 0.0043, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
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123 Epoch: 121, Loss: 0.0042, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
124 Epoch: 122, Loss: 0.0042, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
125 Epoch: 123, Loss: 0.0041, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
126 Epoch: 124, Loss: 0.0041, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
127 Epoch: 125, Loss: 0.0040, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
128 Epoch: 126, Loss: 0.0039, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
129 Epoch: 127, Loss: 0.0039, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
130 Epoch: 128, Loss: 0.0038, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
131 Epoch: 129, Loss: 0.0038, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
132 Epoch: 130, Loss: 0.0038, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
133 Epoch: 131, Loss: 0.0037, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
134 Epoch: 132, Loss: 0.0037, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
135 Epoch: 133, Loss: 0.0036, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
136 Epoch: 134, Loss: 0.0036, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
137 Epoch: 135, Loss: 0.0036, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
138 Epoch: 136, Loss: 0.0035, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
139 Epoch: 137, Loss: 0.0035, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
140 Epoch: 138, Loss: 0.0034, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
141 Epoch: 139, Loss: 0.0034, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
142 Epoch: 140, Loss: 0.0034, Train Acc: 1.0000, Val  
    Acc: 0.9214, Test Acc: 0.9343  
143 Epoch: 141, Loss: 0.0034, Train Acc: 1.0000, Val
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143 Acc: 0.9214, Test Acc: 0.9343
144 Epoch: 142, Loss: 0.0033, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
145 Epoch: 143, Loss: 0.0033, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
146 Epoch: 144, Loss: 0.0033, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
147 Epoch: 145, Loss: 0.0032, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
148 Epoch: 146, Loss: 0.0032, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
149 Epoch: 147, Loss: 0.0032, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
150 Epoch: 148, Loss: 0.0032, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
151 Epoch: 149, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
152 Epoch: 150, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
153 Epoch: 151, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
154 Epoch: 152, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
155 Epoch: 153, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
156 Epoch: 154, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
157 Epoch: 155, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
158 Epoch: 156, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
159 Epoch: 157, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
160 Epoch: 158, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
161 Epoch: 159, Loss: 0.0029, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
162 Epoch: 160, Loss: 0.0029, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
163 Epoch: 161, Loss: 0.0029, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
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164 Epoch: 162, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
165 Epoch: 163, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
166 Epoch: 164, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
167 Epoch: 165, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
168 Epoch: 166, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
169 Epoch: 167, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
170 Epoch: 168, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
171 Epoch: 169, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
172 Epoch: 170, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
173 Epoch: 171, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
174 Epoch: 172, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
175 Epoch: 173, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
176 Epoch: 174, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
177 Epoch: 175, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
178 Epoch: 176, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
179 Epoch: 177, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
180 Epoch: 178, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
181 Epoch: 179, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
182 Epoch: 180, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
183 Epoch: 181, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9343  
184 Epoch: 182, Loss: 0.0027, Train Acc: 1.0000, Val
```

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184 Acc: 0.9214, Test Acc: 0.9343
185 Epoch: 183, Loss: 0.0027, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
186 Epoch: 184, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
187 Epoch: 185, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
188 Epoch: 186, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
189 Epoch: 187, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
190 Epoch: 188, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
191 Epoch: 189, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
192 Epoch: 190, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
193 Epoch: 191, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
194 Epoch: 192, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
195 Epoch: 193, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
196 Epoch: 194, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
197 Epoch: 195, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
198 Epoch: 196, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
199 Epoch: 197, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
200 Epoch: 198, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
201 Epoch: 199, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
202 Epoch: 200, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9343
203 Data(x=[1300, 512], edge_index=[2, 9100],
    edge_attr=[9100], y=[1300], test_mask=[1300],
    train_mask=[1300], val_mask=[1300])
204 Epoch: 001, Loss: 2.0427, Train Acc: 0.3891, Val
```

```
204 Acc: 0.3214, Test Acc: 0.3086
205 Epoch: 002, Loss: 6.9334, Train Acc: 0.3891, Val
    Acc: 0.3214, Test Acc: 0.3086
206 Epoch: 003, Loss: 11.0155, Train Acc: 0.3891, Val
    Acc: 0.3214, Test Acc: 0.3100
207 Epoch: 004, Loss: 5.3130, Train Acc: 0.3891, Val
    Acc: 0.3214, Test Acc: 0.3100
208 Epoch: 005, Loss: 5.2984, Train Acc: 0.4565, Val
    Acc: 0.3429, Test Acc: 0.3557
209 Epoch: 006, Loss: 3.7649, Train Acc: 0.4957, Val
    Acc: 0.4214, Test Acc: 0.4671
210 Epoch: 007, Loss: 2.7522, Train Acc: 0.5609, Val
    Acc: 0.4857, Test Acc: 0.5143
211 Epoch: 008, Loss: 2.2363, Train Acc: 0.6043, Val
    Acc: 0.5286, Test Acc: 0.5371
212 Epoch: 009, Loss: 1.5431, Train Acc: 0.6043, Val
    Acc: 0.5286, Test Acc: 0.5371
213 Epoch: 010, Loss: 1.7189, Train Acc: 0.6587, Val
    Acc: 0.6214, Test Acc: 0.5786
214 Epoch: 011, Loss: 1.3902, Train Acc: 0.6826, Val
    Acc: 0.6786, Test Acc: 0.5957
215 Epoch: 012, Loss: 1.0977, Train Acc: 0.7087, Val
    Acc: 0.6786, Test Acc: 0.6143
216 Epoch: 013, Loss: 1.0459, Train Acc: 0.7500, Val
    Acc: 0.7000, Test Acc: 0.6671
217 Epoch: 014, Loss: 0.7967, Train Acc: 0.7500, Val
    Acc: 0.7143, Test Acc: 0.6671
218 Epoch: 015, Loss: 0.9117, Train Acc: 0.7500, Val
    Acc: 0.7143, Test Acc: 0.6829
219 Epoch: 016, Loss: 0.8747, Train Acc: 0.7543, Val
    Acc: 0.7143, Test Acc: 0.7057
220 Epoch: 017, Loss: 0.7442, Train Acc: 0.8239, Val
    Acc: 0.7214, Test Acc: 0.7300
221 Epoch: 018, Loss: 0.5787, Train Acc: 0.8239, Val
    Acc: 0.7214, Test Acc: 0.7300
222 Epoch: 019, Loss: 0.6077, Train Acc: 0.8326, Val
    Acc: 0.7429, Test Acc: 0.7300
223 Epoch: 020, Loss: 0.5041, Train Acc: 0.8435, Val
    Acc: 0.7571, Test Acc: 0.7400
224 Epoch: 021, Loss: 0.4552, Train Acc: 0.8435, Val
    Acc: 0.7929, Test Acc: 0.7400
```

225	Epoch: 022, Loss: 0.4732, Train Acc: 0.8587, Val Acc: 0.7929, Test Acc: 0.7400
226	Epoch: 023, Loss: 0.4530, Train Acc: 0.9022, Val Acc: 0.8143, Test Acc: 0.7771
227	Epoch: 024, Loss: 0.3797, Train Acc: 0.9283, Val Acc: 0.8429, Test Acc: 0.8100
228	Epoch: 025, Loss: 0.3245, Train Acc: 0.9283, Val Acc: 0.8571, Test Acc: 0.8400
229	Epoch: 026, Loss: 0.3124, Train Acc: 0.9370, Val Acc: 0.8571, Test Acc: 0.8586
230	Epoch: 027, Loss: 0.2796, Train Acc: 0.9565, Val Acc: 0.8643, Test Acc: 0.8586
231	Epoch: 028, Loss: 0.2457, Train Acc: 0.9565, Val Acc: 0.8786, Test Acc: 0.8586
232	Epoch: 029, Loss: 0.2287, Train Acc: 0.9587, Val Acc: 0.8786, Test Acc: 0.8686
233	Epoch: 030, Loss: 0.2030, Train Acc: 0.9587, Val Acc: 0.8786, Test Acc: 0.8686
234	Epoch: 031, Loss: 0.1890, Train Acc: 0.9587, Val Acc: 0.8786, Test Acc: 0.8686
235	Epoch: 032, Loss: 0.1837, Train Acc: 0.9609, Val Acc: 0.8786, Test Acc: 0.8686
236	Epoch: 033, Loss: 0.1631, Train Acc: 0.9739, Val Acc: 0.8786, Test Acc: 0.8786
237	Epoch: 034, Loss: 0.1407, Train Acc: 0.9783, Val Acc: 0.8929, Test Acc: 0.8786
238	Epoch: 035, Loss: 0.1306, Train Acc: 0.9870, Val Acc: 0.9143, Test Acc: 0.9043
239	Epoch: 036, Loss: 0.1109, Train Acc: 0.9891, Val Acc: 0.9143, Test Acc: 0.9157
240	Epoch: 037, Loss: 0.1085, Train Acc: 0.9891, Val Acc: 0.9143, Test Acc: 0.9157
241	Epoch: 038, Loss: 0.0966, Train Acc: 0.9913, Val Acc: 0.9143, Test Acc: 0.9157
242	Epoch: 039, Loss: 0.0914, Train Acc: 0.9913, Val Acc: 0.9214, Test Acc: 0.9157
243	Epoch: 040, Loss: 0.0875, Train Acc: 0.9935, Val Acc: 0.9214, Test Acc: 0.9157
244	Epoch: 041, Loss: 0.0787, Train Acc: 0.9978, Val Acc: 0.9214, Test Acc: 0.9157
245	Epoch: 042, Loss: 0.0665, Train Acc: 0.9978, Val

```
245 Acc: 0.9214, Test Acc: 0.9157
246 Epoch: 043, Loss: 0.0617, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9157
247 Epoch: 044, Loss: 0.0550, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9271
248 Epoch: 045, Loss: 0.0493, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9386
249 Epoch: 046, Loss: 0.0449, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9386
250 Epoch: 047, Loss: 0.0407, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
251 Epoch: 048, Loss: 0.0374, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
252 Epoch: 049, Loss: 0.0345, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
253 Epoch: 050, Loss: 0.0300, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
254 Epoch: 051, Loss: 0.0279, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
255 Epoch: 052, Loss: 0.0269, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
256 Epoch: 053, Loss: 0.0253, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
257 Epoch: 054, Loss: 0.0225, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
258 Epoch: 055, Loss: 0.0197, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
259 Epoch: 056, Loss: 0.0174, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
260 Epoch: 057, Loss: 0.0157, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9400
261 Epoch: 058, Loss: 0.0145, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9414
262 Epoch: 059, Loss: 0.0136, Train Acc: 0.9978, Val
    Acc: 0.9214, Test Acc: 0.9414
263 Epoch: 060, Loss: 0.0129, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9457
264 Epoch: 061, Loss: 0.0122, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9457
265 Epoch: 062, Loss: 0.0114, Train Acc: 1.0000, Val
    Acc: 0.9214, Test Acc: 0.9457
```

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266 Epoch: 063, Loss: 0.0106, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
267 Epoch: 064, Loss: 0.0099, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
268 Epoch: 065, Loss: 0.0092, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
269 Epoch: 066, Loss: 0.0086, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
270 Epoch: 067, Loss: 0.0081, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
271 Epoch: 068, Loss: 0.0075, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
272 Epoch: 069, Loss: 0.0071, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
273 Epoch: 070, Loss: 0.0066, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
274 Epoch: 071, Loss: 0.0063, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
275 Epoch: 072, Loss: 0.0060, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
276 Epoch: 073, Loss: 0.0058, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
277 Epoch: 074, Loss: 0.0056, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
278 Epoch: 075, Loss: 0.0054, Train Acc: 1.0000, Val  
Acc: 0.9214, Test Acc: 0.9457  
279 Epoch: 076, Loss: 0.0052, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
280 Epoch: 077, Loss: 0.0050, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
281 Epoch: 078, Loss: 0.0048, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
282 Epoch: 079, Loss: 0.0046, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
283 Epoch: 080, Loss: 0.0044, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
284 Epoch: 081, Loss: 0.0043, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
285 Epoch: 082, Loss: 0.0041, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
286 Epoch: 083, Loss: 0.0040, Train Acc: 1.0000, Val
```

```
286 Acc: 0.9286, Test Acc: 0.9457
287 Epoch: 084, Loss: 0.0039, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
288 Epoch: 085, Loss: 0.0038, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
289 Epoch: 086, Loss: 0.0037, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
290 Epoch: 087, Loss: 0.0036, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
291 Epoch: 088, Loss: 0.0035, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
292 Epoch: 089, Loss: 0.0034, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
293 Epoch: 090, Loss: 0.0033, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
294 Epoch: 091, Loss: 0.0033, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
295 Epoch: 092, Loss: 0.0032, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
296 Epoch: 093, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
297 Epoch: 094, Loss: 0.0031, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
298 Epoch: 095, Loss: 0.0030, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
299 Epoch: 096, Loss: 0.0029, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
300 Epoch: 097, Loss: 0.0029, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
301 Epoch: 098, Loss: 0.0028, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
302 Epoch: 099, Loss: 0.0028, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
303 Epoch: 100, Loss: 0.0027, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
304 Epoch: 101, Loss: 0.0027, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
305 Epoch: 102, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
306 Epoch: 103, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
```

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307 Epoch: 104, Loss: 0.0026, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
308 Epoch: 105, Loss: 0.0025, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
309 Epoch: 106, Loss: 0.0025, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
310 Epoch: 107, Loss: 0.0025, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
311 Epoch: 108, Loss: 0.0024, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
312 Epoch: 109, Loss: 0.0024, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
313 Epoch: 110, Loss: 0.0024, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
314 Epoch: 111, Loss: 0.0023, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
315 Epoch: 112, Loss: 0.0023, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
316 Epoch: 113, Loss: 0.0023, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
317 Epoch: 114, Loss: 0.0022, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
318 Epoch: 115, Loss: 0.0022, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
319 Epoch: 116, Loss: 0.0022, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
320 Epoch: 117, Loss: 0.0022, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
321 Epoch: 118, Loss: 0.0022, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
322 Epoch: 119, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
323 Epoch: 120, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
324 Epoch: 121, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
325 Epoch: 122, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
326 Epoch: 123, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
327 Epoch: 124, Loss: 0.0020, Train Acc: 1.0000, Val
```

```
327 Acc: 0.9286, Test Acc: 0.9457
328 Epoch: 125, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
329 Epoch: 126, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
330 Epoch: 127, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
331 Epoch: 128, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
332 Epoch: 129, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
333 Epoch: 130, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
334 Epoch: 131, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
335 Epoch: 132, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
336 Epoch: 133, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
337 Epoch: 134, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
338 Epoch: 135, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
339 Epoch: 136, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
340 Epoch: 137, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
341 Epoch: 138, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
342 Epoch: 139, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
343 Epoch: 140, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
344 Epoch: 141, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
345 Epoch: 142, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
346 Epoch: 143, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
347 Epoch: 144, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
```

```
348 Epoch: 145, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
349 Epoch: 146, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
350 Epoch: 147, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
351 Epoch: 148, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
352 Epoch: 149, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
353 Epoch: 150, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
354 Epoch: 151, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
355 Epoch: 152, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
356 Epoch: 153, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
357 Epoch: 154, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
358 Epoch: 155, Loss: 0.0017, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
359 Epoch: 156, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
360 Epoch: 157, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
361 Epoch: 158, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
362 Epoch: 159, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
363 Epoch: 160, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
364 Epoch: 161, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
365 Epoch: 162, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
366 Epoch: 163, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
367 Epoch: 164, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
368 Epoch: 165, Loss: 0.0016, Train Acc: 1.0000, Val
```

```
368 Acc: 0.9286, Test Acc: 0.9457
369 Epoch: 166, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
370 Epoch: 167, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
371 Epoch: 168, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
372 Epoch: 169, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
373 Epoch: 170, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
374 Epoch: 171, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
375 Epoch: 172, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
376 Epoch: 173, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
377 Epoch: 174, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
378 Epoch: 175, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
379 Epoch: 176, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
380 Epoch: 177, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
381 Epoch: 178, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
382 Epoch: 179, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
383 Epoch: 180, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
384 Epoch: 181, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
385 Epoch: 182, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
386 Epoch: 183, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
387 Epoch: 184, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
388 Epoch: 185, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9286, Test Acc: 0.9457
```

```
389 Epoch: 186, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
390 Epoch: 187, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
391 Epoch: 188, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
392 Epoch: 189, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
393 Epoch: 190, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
394 Epoch: 191, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
395 Epoch: 192, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
396 Epoch: 193, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
397 Epoch: 194, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
398 Epoch: 195, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
399 Epoch: 196, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
400 Epoch: 197, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
401 Epoch: 198, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
402 Epoch: 199, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
403 Epoch: 200, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9286, Test Acc: 0.9457  
404 Data(x=[1200, 512], edge_index=[2, 8400],  
edge_attr=[8400], y=[1200], test_mask=[1200],  
train_mask=[1200], val_mask=[1200])  
405 Epoch: 001, Loss: 1.9298, Train Acc: 0.4333, Val  
Acc: 0.2714, Test Acc: 0.3000  
406 Epoch: 002, Loss: 8.2388, Train Acc: 0.4333, Val  
Acc: 0.3500, Test Acc: 0.3000  
407 Epoch: 003, Loss: 11.7595, Train Acc: 0.4556, Val  
Acc: 0.4000, Test Acc: 0.4114  
408 Epoch: 004, Loss: 9.5524, Train Acc: 0.4556, Val  
Acc: 0.4000, Test Acc: 0.4114
```

```
409 Epoch: 005, Loss: 6.9991, Train Acc: 0.5833, Val  
Acc: 0.4000, Test Acc: 0.4429  
410 Epoch: 006, Loss: 2.1266, Train Acc: 0.5833, Val  
Acc: 0.4071, Test Acc: 0.4429  
411 Epoch: 007, Loss: 2.7170, Train Acc: 0.5833, Val  
Acc: 0.4143, Test Acc: 0.4514  
412 Epoch: 008, Loss: 2.6962, Train Acc: 0.6000, Val  
Acc: 0.5214, Test Acc: 0.5343  
413 Epoch: 009, Loss: 1.9914, Train Acc: 0.6000, Val  
Acc: 0.5643, Test Acc: 0.5343  
414 Epoch: 010, Loss: 3.0700, Train Acc: 0.6972, Val  
Acc: 0.6214, Test Acc: 0.6129  
415 Epoch: 011, Loss: 1.5709, Train Acc: 0.7083, Val  
Acc: 0.6214, Test Acc: 0.6129  
416 Epoch: 012, Loss: 1.5292, Train Acc: 0.7083, Val  
Acc: 0.6214, Test Acc: 0.6129  
417 Epoch: 013, Loss: 1.6382, Train Acc: 0.7083, Val  
Acc: 0.6214, Test Acc: 0.6129  
418 Epoch: 014, Loss: 1.5064, Train Acc: 0.7083, Val  
Acc: 0.6214, Test Acc: 0.6129  
419 Epoch: 015, Loss: 1.1752, Train Acc: 0.7833, Val  
Acc: 0.6429, Test Acc: 0.6500  
420 Epoch: 016, Loss: 0.8812, Train Acc: 0.7833, Val  
Acc: 0.6643, Test Acc: 0.6500  
421 Epoch: 017, Loss: 1.0898, Train Acc: 0.7917, Val  
Acc: 0.7071, Test Acc: 0.6943  
422 Epoch: 018, Loss: 0.7495, Train Acc: 0.8361, Val  
Acc: 0.7071, Test Acc: 0.6971  
423 Epoch: 019, Loss: 0.5089, Train Acc: 0.8389, Val  
Acc: 0.7429, Test Acc: 0.6971  
424 Epoch: 020, Loss: 0.5093, Train Acc: 0.8389, Val  
Acc: 0.7429, Test Acc: 0.6971  
425 Epoch: 021, Loss: 0.5939, Train Acc: 0.8389, Val  
Acc: 0.7429, Test Acc: 0.6971  
426 Epoch: 022, Loss: 0.6015, Train Acc: 0.8472, Val  
Acc: 0.7500, Test Acc: 0.6971  
427 Epoch: 023, Loss: 0.5003, Train Acc: 0.8611, Val  
Acc: 0.7500, Test Acc: 0.7014  
428 Epoch: 024, Loss: 0.4499, Train Acc: 0.8944, Val  
Acc: 0.7500, Test Acc: 0.7314  
429 Epoch: 025, Loss: 0.3675, Train Acc: 0.9167, Val
```

```
429 Acc: 0.8000, Test Acc: 0.7786
430 Epoch: 026, Loss: 0.3241, Train Acc: 0.9167, Val
    Acc: 0.8000, Test Acc: 0.7786
431 Epoch: 027, Loss: 0.3439, Train Acc: 0.9167, Val
    Acc: 0.8000, Test Acc: 0.7786
432 Epoch: 028, Loss: 0.3358, Train Acc: 0.9306, Val
    Acc: 0.8000, Test Acc: 0.7786
433 Epoch: 029, Loss: 0.2930, Train Acc: 0.9444, Val
    Acc: 0.8000, Test Acc: 0.7929
434 Epoch: 030, Loss: 0.2519, Train Acc: 0.9472, Val
    Acc: 0.8429, Test Acc: 0.8100
435 Epoch: 031, Loss: 0.2297, Train Acc: 0.9500, Val
    Acc: 0.8714, Test Acc: 0.8300
436 Epoch: 032, Loss: 0.2112, Train Acc: 0.9500, Val
    Acc: 0.8714, Test Acc: 0.8300
437 Epoch: 033, Loss: 0.2118, Train Acc: 0.9500, Val
    Acc: 0.8714, Test Acc: 0.8300
438 Epoch: 034, Loss: 0.1983, Train Acc: 0.9611, Val
    Acc: 0.8929, Test Acc: 0.8314
439 Epoch: 035, Loss: 0.1770, Train Acc: 0.9694, Val
    Acc: 0.8929, Test Acc: 0.8371
440 Epoch: 036, Loss: 0.1601, Train Acc: 0.9694, Val
    Acc: 0.8929, Test Acc: 0.8386
441 Epoch: 037, Loss: 0.1487, Train Acc: 0.9694, Val
    Acc: 0.8929, Test Acc: 0.8500
442 Epoch: 038, Loss: 0.1372, Train Acc: 0.9750, Val
    Acc: 0.8929, Test Acc: 0.8614
443 Epoch: 039, Loss: 0.1247, Train Acc: 0.9806, Val
    Acc: 0.8929, Test Acc: 0.8729
444 Epoch: 040, Loss: 0.1156, Train Acc: 0.9861, Val
    Acc: 0.8929, Test Acc: 0.8800
445 Epoch: 041, Loss: 0.1105, Train Acc: 0.9861, Val
    Acc: 0.9000, Test Acc: 0.8843
446 Epoch: 042, Loss: 0.1032, Train Acc: 0.9861, Val
    Acc: 0.9000, Test Acc: 0.8843
447 Epoch: 043, Loss: 0.0905, Train Acc: 0.9889, Val
    Acc: 0.9000, Test Acc: 0.8843
448 Epoch: 044, Loss: 0.0810, Train Acc: 0.9917, Val
    Acc: 0.9000, Test Acc: 0.8843
449 Epoch: 045, Loss: 0.0754, Train Acc: 0.9944, Val
    Acc: 0.9000, Test Acc: 0.8843
```

```
450 Epoch: 046, Loss: 0.0707, Train Acc: 0.9944, Val  
Acc: 0.9000, Test Acc: 0.8843  
451 Epoch: 047, Loss: 0.0656, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8843  
452 Epoch: 048, Loss: 0.0605, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8843  
453 Epoch: 049, Loss: 0.0556, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8857  
454 Epoch: 050, Loss: 0.0507, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
455 Epoch: 051, Loss: 0.0457, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
456 Epoch: 052, Loss: 0.0410, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
457 Epoch: 053, Loss: 0.0372, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
458 Epoch: 054, Loss: 0.0342, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
459 Epoch: 055, Loss: 0.0316, Train Acc: 0.9972, Val  
Acc: 0.9000, Test Acc: 0.8871  
460 Epoch: 056, Loss: 0.0289, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
461 Epoch: 057, Loss: 0.0262, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
462 Epoch: 058, Loss: 0.0237, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
463 Epoch: 059, Loss: 0.0217, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
464 Epoch: 060, Loss: 0.0199, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
465 Epoch: 061, Loss: 0.0182, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
466 Epoch: 062, Loss: 0.0166, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
467 Epoch: 063, Loss: 0.0152, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
468 Epoch: 064, Loss: 0.0140, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
469 Epoch: 065, Loss: 0.0129, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
470 Epoch: 066, Loss: 0.0121, Train Acc: 1.0000, Val
```

```
470 Acc: 0.9000, Test Acc: 0.8871
471 Epoch: 067, Loss: 0.0113, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
472 Epoch: 068, Loss: 0.0105, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
473 Epoch: 069, Loss: 0.0099, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
474 Epoch: 070, Loss: 0.0093, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
475 Epoch: 071, Loss: 0.0087, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
476 Epoch: 072, Loss: 0.0082, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
477 Epoch: 073, Loss: 0.0078, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
478 Epoch: 074, Loss: 0.0073, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
479 Epoch: 075, Loss: 0.0069, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
480 Epoch: 076, Loss: 0.0066, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
481 Epoch: 077, Loss: 0.0063, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
482 Epoch: 078, Loss: 0.0060, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
483 Epoch: 079, Loss: 0.0058, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
484 Epoch: 080, Loss: 0.0055, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
485 Epoch: 081, Loss: 0.0053, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
486 Epoch: 082, Loss: 0.0051, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
487 Epoch: 083, Loss: 0.0049, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
488 Epoch: 084, Loss: 0.0048, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
489 Epoch: 085, Loss: 0.0046, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
490 Epoch: 086, Loss: 0.0045, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
```

```
491 Epoch: 087, Loss: 0.0043, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
492 Epoch: 088, Loss: 0.0042, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
493 Epoch: 089, Loss: 0.0040, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
494 Epoch: 090, Loss: 0.0039, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
495 Epoch: 091, Loss: 0.0038, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
496 Epoch: 092, Loss: 0.0037, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
497 Epoch: 093, Loss: 0.0036, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
498 Epoch: 094, Loss: 0.0035, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
499 Epoch: 095, Loss: 0.0035, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
500 Epoch: 096, Loss: 0.0034, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
501 Epoch: 097, Loss: 0.0033, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
502 Epoch: 098, Loss: 0.0032, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
503 Epoch: 099, Loss: 0.0032, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
504 Epoch: 100, Loss: 0.0031, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
505 Epoch: 101, Loss: 0.0030, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
506 Epoch: 102, Loss: 0.0030, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
507 Epoch: 103, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
508 Epoch: 104, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
509 Epoch: 105, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
510 Epoch: 106, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
511 Epoch: 107, Loss: 0.0027, Train Acc: 1.0000, Val
```

```
511 Acc: 0.9000, Test Acc: 0.8871
512 Epoch: 108, Loss: 0.0027, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
513 Epoch: 109, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
514 Epoch: 110, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
515 Epoch: 111, Loss: 0.0026, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
516 Epoch: 112, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
517 Epoch: 113, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
518 Epoch: 114, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
519 Epoch: 115, Loss: 0.0024, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
520 Epoch: 116, Loss: 0.0024, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
521 Epoch: 117, Loss: 0.0024, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
522 Epoch: 118, Loss: 0.0023, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
523 Epoch: 119, Loss: 0.0023, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
524 Epoch: 120, Loss: 0.0023, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
525 Epoch: 121, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
526 Epoch: 122, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
527 Epoch: 123, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
528 Epoch: 124, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
529 Epoch: 125, Loss: 0.0021, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
530 Epoch: 126, Loss: 0.0021, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
531 Epoch: 127, Loss: 0.0021, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
```

```
532 Epoch: 128, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
533 Epoch: 129, Loss: 0.0021, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
534 Epoch: 130, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
535 Epoch: 131, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
536 Epoch: 132, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
537 Epoch: 133, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
538 Epoch: 134, Loss: 0.0020, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
539 Epoch: 135, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
540 Epoch: 136, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
541 Epoch: 137, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
542 Epoch: 138, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
543 Epoch: 139, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
544 Epoch: 140, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
545 Epoch: 141, Loss: 0.0019, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
546 Epoch: 142, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
547 Epoch: 143, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
548 Epoch: 144, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
549 Epoch: 145, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
550 Epoch: 146, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
551 Epoch: 147, Loss: 0.0018, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
552 Epoch: 148, Loss: 0.0018, Train Acc: 1.0000, Val
```

```
552 Acc: 0.9000, Test Acc: 0.8871
553 Epoch: 149, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
554 Epoch: 150, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
555 Epoch: 151, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
556 Epoch: 152, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
557 Epoch: 153, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
558 Epoch: 154, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
559 Epoch: 155, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
560 Epoch: 156, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
561 Epoch: 157, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
562 Epoch: 158, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
563 Epoch: 159, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
564 Epoch: 160, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
565 Epoch: 161, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
566 Epoch: 162, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
567 Epoch: 163, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
568 Epoch: 164, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
569 Epoch: 165, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
570 Epoch: 166, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
571 Epoch: 167, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
572 Epoch: 168, Loss: 0.0016, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
```

```
573 Epoch: 169, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
574 Epoch: 170, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
575 Epoch: 171, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
576 Epoch: 172, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
577 Epoch: 173, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
578 Epoch: 174, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
579 Epoch: 175, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
580 Epoch: 176, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
581 Epoch: 177, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
582 Epoch: 178, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
583 Epoch: 179, Loss: 0.0016, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
584 Epoch: 180, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
585 Epoch: 181, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
586 Epoch: 182, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
587 Epoch: 183, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
588 Epoch: 184, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
589 Epoch: 185, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
590 Epoch: 186, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
591 Epoch: 187, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
592 Epoch: 188, Loss: 0.0015, Train Acc: 1.0000, Val  
Acc: 0.9000, Test Acc: 0.8871  
593 Epoch: 189, Loss: 0.0015, Train Acc: 1.0000, Val
```

```
593 Acc: 0.9000, Test Acc: 0.8871
594 Epoch: 190, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
595 Epoch: 191, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
596 Epoch: 192, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
597 Epoch: 193, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
598 Epoch: 194, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
599 Epoch: 195, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
600 Epoch: 196, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
601 Epoch: 197, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
602 Epoch: 198, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
603 Epoch: 199, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
604 Epoch: 200, Loss: 0.0015, Train Acc: 1.0000, Val
    Acc: 0.9000, Test Acc: 0.8871
605 Data(x=[1100, 512],
        edge_index=[2, 7700],
        edge_attr=[7700], y=[1100], test_mask=[1100],
        train_mask=[1100], val_mask=[1100])
606 Epoch: 001, Loss: 2.0082, Train Acc: 0.6346, Val
    Acc: 0.3214, Test Acc: 0.2886
607 Epoch: 002, Loss: 6.6725, Train Acc: 0.6346, Val
    Acc: 0.3214, Test Acc: 0.2886
608 Epoch: 003, Loss: 15.1199, Train Acc: 0.6346, Val
    Acc: 0.3214, Test Acc: 0.3157
609 Epoch: 004, Loss: 8.8362, Train Acc: 0.6346, Val
    Acc: 0.3929, Test Acc: 0.4114
610 Epoch: 005, Loss: 2.7331, Train Acc: 0.6346, Val
    Acc: 0.3929, Test Acc: 0.4114
611 Epoch: 006, Loss: 4.3716, Train Acc: 0.6500, Val
    Acc: 0.3929, Test Acc: 0.4114
612 Epoch: 007, Loss: 4.3471, Train Acc: 0.6885, Val
    Acc: 0.4286, Test Acc: 0.4114
613 Epoch: 008, Loss: 3.2201, Train Acc: 0.6885, Val
```

```
613 Epoch: 009, Loss: 3.0622, Train Acc: 0.7385, Val  
Acc: 0.5071, Test Acc: 0.5000  
614 Epoch: 010, Loss: 1.8087, Train Acc: 0.7615, Val  
Acc: 0.5429, Test Acc: 0.5300  
615 Epoch: 011, Loss: 1.9518, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5457  
616 Epoch: 012, Loss: 1.5892, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5457  
617 Epoch: 013, Loss: 1.5697, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5457  
618 Epoch: 014, Loss: 1.3884, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5457  
619 Epoch: 015, Loss: 1.0784, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5486  
620 Epoch: 016, Loss: 0.8389, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5614  
621 Epoch: 017, Loss: 0.8431, Train Acc: 0.8154, Val  
Acc: 0.5429, Test Acc: 0.5657  
622 Epoch: 018, Loss: 0.6945, Train Acc: 0.8308, Val  
Acc: 0.5500, Test Acc: 0.5700  
623 Epoch: 019, Loss: 0.5321, Train Acc: 0.8308, Val  
Acc: 0.5571, Test Acc: 0.5814  
624 Epoch: 020, Loss: 0.4666, Train Acc: 0.8346, Val  
Acc: 0.5857, Test Acc: 0.6000  
625 Epoch: 021, Loss: 0.4272, Train Acc: 0.8577, Val  
Acc: 0.6143, Test Acc: 0.6157  
626 Epoch: 022, Loss: 0.3948, Train Acc: 0.8731, Val  
Acc: 0.6929, Test Acc: 0.6471  
627 Epoch: 023, Loss: 0.3302, Train Acc: 0.9192, Val  
Acc: 0.7000, Test Acc: 0.6471  
628 Epoch: 024, Loss: 0.2622, Train Acc: 0.9192, Val  
Acc: 0.7000, Test Acc: 0.6471  
629 Epoch: 025, Loss: 0.2628, Train Acc: 0.9192, Val  
Acc: 0.7000, Test Acc: 0.6471  
630 Epoch: 026, Loss: 0.2615, Train Acc: 0.9231, Val  
Acc: 0.7000, Test Acc: 0.6471  
631 Epoch: 027, Loss: 0.2394, Train Acc: 0.9308, Val  
Acc: 0.7000, Test Acc: 0.6471  
632 Epoch: 028, Loss: 0.2208, Train Acc: 0.9538, Val  
Acc: 0.7000, Test Acc: 0.6686
```

```
634 Epoch: 029, Loss: 0.1897, Train Acc: 0.9615, Val  
Acc: 0.7071, Test Acc: 0.6971  
635 Epoch: 030, Loss: 0.1606, Train Acc: 0.9731, Val  
Acc: 0.7286, Test Acc: 0.7114  
636 Epoch: 031, Loss: 0.1411, Train Acc: 0.9808, Val  
Acc: 0.7714, Test Acc: 0.7514  
637 Epoch: 032, Loss: 0.1251, Train Acc: 0.9885, Val  
Acc: 0.7714, Test Acc: 0.7571  
638 Epoch: 033, Loss: 0.1140, Train Acc: 0.9885, Val  
Acc: 0.7714, Test Acc: 0.7571  
639 Epoch: 034, Loss: 0.1077, Train Acc: 0.9885, Val  
Acc: 0.7714, Test Acc: 0.7571  
640 Epoch: 035, Loss: 0.1024, Train Acc: 0.9923, Val  
Acc: 0.7714, Test Acc: 0.7571  
641 Epoch: 036, Loss: 0.0946, Train Acc: 1.0000, Val  
Acc: 0.7714, Test Acc: 0.7571  
642 Epoch: 037, Loss: 0.0852, Train Acc: 1.0000, Val  
Acc: 0.7714, Test Acc: 0.7571  
643 Epoch: 038, Loss: 0.0756, Train Acc: 1.0000, Val  
Acc: 0.7714, Test Acc: 0.7571  
644 Epoch: 039, Loss: 0.0668, Train Acc: 1.0000, Val  
Acc: 0.7714, Test Acc: 0.7571  
645 Epoch: 040, Loss: 0.0593, Train Acc: 1.0000, Val  
Acc: 0.7857, Test Acc: 0.7629  
646 Epoch: 041, Loss: 0.0534, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
647 Epoch: 042, Loss: 0.0487, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
648 Epoch: 043, Loss: 0.0446, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
649 Epoch: 044, Loss: 0.0408, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
650 Epoch: 045, Loss: 0.0373, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
651 Epoch: 046, Loss: 0.0330, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
652 Epoch: 047, Loss: 0.0295, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7786  
653 Epoch: 048, Loss: 0.0262, Train Acc: 1.0000, Val  
Acc: 0.8000, Test Acc: 0.7843  
654 Epoch: 049, Loss: 0.0235, Train Acc: 1.0000, Val
```

```
654 Acc: 0.8000, Test Acc: 0.7843
655 Epoch: 050, Loss: 0.0216, Train Acc: 1.0000, Val
    Acc: 0.8143, Test Acc: 0.7886
656 Epoch: 051, Loss: 0.0202, Train Acc: 1.0000, Val
    Acc: 0.8143, Test Acc: 0.7900
657 Epoch: 052, Loss: 0.0189, Train Acc: 1.0000, Val
    Acc: 0.8143, Test Acc: 0.8014
658 Epoch: 053, Loss: 0.0174, Train Acc: 1.0000, Val
    Acc: 0.8214, Test Acc: 0.8029
659 Epoch: 054, Loss: 0.0158, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8029
660 Epoch: 055, Loss: 0.0143, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8029
661 Epoch: 056, Loss: 0.0130, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8029
662 Epoch: 057, Loss: 0.0119, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8029
663 Epoch: 058, Loss: 0.0109, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8029
664 Epoch: 059, Loss: 0.0100, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
665 Epoch: 060, Loss: 0.0092, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
666 Epoch: 061, Loss: 0.0086, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
667 Epoch: 062, Loss: 0.0083, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
668 Epoch: 063, Loss: 0.0076, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
669 Epoch: 064, Loss: 0.0071, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
670 Epoch: 065, Loss: 0.0067, Train Acc: 1.0000, Val
    Acc: 0.8286, Test Acc: 0.8043
671 Epoch: 066, Loss: 0.0064, Train Acc: 1.0000, Val
    Acc: 0.8357, Test Acc: 0.8043
672 Epoch: 067, Loss: 0.0060, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8114
673 Epoch: 068, Loss: 0.0057, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8114
674 Epoch: 069, Loss: 0.0054, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8114
```

```
675 Epoch: 070, Loss: 0.0051, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
676 Epoch: 071, Loss: 0.0049, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
677 Epoch: 072, Loss: 0.0046, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
678 Epoch: 073, Loss: 0.0044, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
679 Epoch: 074, Loss: 0.0042, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
680 Epoch: 075, Loss: 0.0041, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
681 Epoch: 076, Loss: 0.0039, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
682 Epoch: 077, Loss: 0.0037, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
683 Epoch: 078, Loss: 0.0036, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
684 Epoch: 079, Loss: 0.0035, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
685 Epoch: 080, Loss: 0.0034, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
686 Epoch: 081, Loss: 0.0032, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
687 Epoch: 082, Loss: 0.0031, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
688 Epoch: 083, Loss: 0.0030, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8114  
689 Epoch: 084, Loss: 0.0030, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8129  
690 Epoch: 085, Loss: 0.0029, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8129  
691 Epoch: 086, Loss: 0.0028, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8129  
692 Epoch: 087, Loss: 0.0027, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8143  
693 Epoch: 088, Loss: 0.0026, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8143  
694 Epoch: 089, Loss: 0.0026, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8143  
695 Epoch: 090, Loss: 0.0025, Train Acc: 1.0000, Val
```

```
695 Acc: 0.8429, Test Acc: 0.8143
696 Epoch: 091, Loss: 0.0025, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8143
697 Epoch: 092, Loss: 0.0024, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
698 Epoch: 093, Loss: 0.0023, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
699 Epoch: 094, Loss: 0.0023, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
700 Epoch: 095, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
701 Epoch: 096, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
702 Epoch: 097, Loss: 0.0022, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
703 Epoch: 098, Loss: 0.0021, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
704 Epoch: 099, Loss: 0.0021, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
705 Epoch: 100, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
706 Epoch: 101, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
707 Epoch: 102, Loss: 0.0020, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
708 Epoch: 103, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
709 Epoch: 104, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
710 Epoch: 105, Loss: 0.0019, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
711 Epoch: 106, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
712 Epoch: 107, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
713 Epoch: 108, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
714 Epoch: 109, Loss: 0.0018, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
715 Epoch: 110, Loss: 0.0017, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8157
```

```
716 Epoch: 111, Loss: 0.0017, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
717 Epoch: 112, Loss: 0.0017, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
718 Epoch: 113, Loss: 0.0017, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
719 Epoch: 114, Loss: 0.0017, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
720 Epoch: 115, Loss: 0.0016, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
721 Epoch: 116, Loss: 0.0016, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
722 Epoch: 117, Loss: 0.0016, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
723 Epoch: 118, Loss: 0.0016, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
724 Epoch: 119, Loss: 0.0016, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
725 Epoch: 120, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
726 Epoch: 121, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8157  
727 Epoch: 122, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
728 Epoch: 123, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
729 Epoch: 124, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
730 Epoch: 125, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
731 Epoch: 126, Loss: 0.0015, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
732 Epoch: 127, Loss: 0.0014, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
733 Epoch: 128, Loss: 0.0014, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
734 Epoch: 129, Loss: 0.0014, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
735 Epoch: 130, Loss: 0.0014, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
736 Epoch: 131, Loss: 0.0014, Train Acc: 1.0000, Val
```

```
736 Acc: 0.8429, Test Acc: 0.8171
737 Epoch: 132, Loss: 0.0014, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
738 Epoch: 133, Loss: 0.0014, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
739 Epoch: 134, Loss: 0.0014, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
740 Epoch: 135, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
741 Epoch: 136, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
742 Epoch: 137, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
743 Epoch: 138, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
744 Epoch: 139, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
745 Epoch: 140, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
746 Epoch: 141, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
747 Epoch: 142, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
748 Epoch: 143, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
749 Epoch: 144, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
750 Epoch: 145, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
751 Epoch: 146, Loss: 0.0013, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
752 Epoch: 147, Loss: 0.0012, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
753 Epoch: 148, Loss: 0.0012, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
754 Epoch: 149, Loss: 0.0012, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
755 Epoch: 150, Loss: 0.0012, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
756 Epoch: 151, Loss: 0.0012, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8171
```

```
757 Epoch: 152, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
758 Epoch: 153, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
759 Epoch: 154, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
760 Epoch: 155, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8171  
761 Epoch: 156, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
762 Epoch: 157, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
763 Epoch: 158, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
764 Epoch: 159, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
765 Epoch: 160, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
766 Epoch: 161, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
767 Epoch: 162, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
768 Epoch: 163, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
769 Epoch: 164, Loss: 0.0012, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
770 Epoch: 165, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
771 Epoch: 166, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
772 Epoch: 167, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
773 Epoch: 168, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
774 Epoch: 169, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
775 Epoch: 170, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
776 Epoch: 171, Loss: 0.0011, Train Acc: 1.0000, Val  
    Acc: 0.8429, Test Acc: 0.8186  
777 Epoch: 172, Loss: 0.0011, Train Acc: 1.0000, Val
```

```
777 Acc: 0.8429, Test Acc: 0.8186
778 Epoch: 173, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
779 Epoch: 174, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
780 Epoch: 175, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
781 Epoch: 176, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
782 Epoch: 177, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
783 Epoch: 178, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
784 Epoch: 179, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
785 Epoch: 180, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
786 Epoch: 181, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
787 Epoch: 182, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
788 Epoch: 183, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
789 Epoch: 184, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
790 Epoch: 185, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
791 Epoch: 186, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
792 Epoch: 187, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
793 Epoch: 188, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
794 Epoch: 189, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
795 Epoch: 190, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
796 Epoch: 191, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
797 Epoch: 192, Loss: 0.0011, Train Acc: 1.0000, Val
    Acc: 0.8429, Test Acc: 0.8186
```

```
798 Epoch: 193, Loss: 0.0011, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
799 Epoch: 194, Loss: 0.0011, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
800 Epoch: 195, Loss: 0.0011, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
801 Epoch: 196, Loss: 0.0011, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
802 Epoch: 197, Loss: 0.0010, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
803 Epoch: 198, Loss: 0.0010, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
804 Epoch: 199, Loss: 0.0010, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
805 Epoch: 200, Loss: 0.0010, Train Acc: 1.0000, Val  
Acc: 0.8429, Test Acc: 0.8186  
806  
807 进程已结束, 退出代码为 0  
808
```