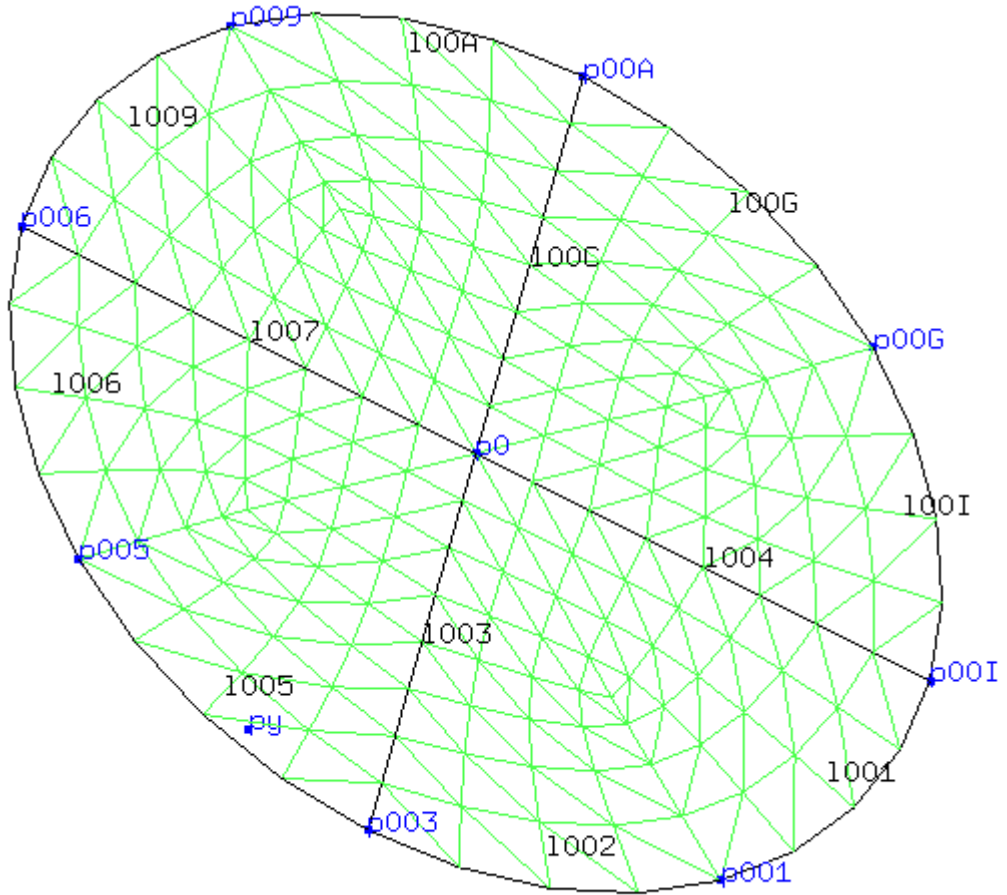


5.5(a) DISC FROM EXAMPLES
Element type 4-node shell element QU4



209-NODES 192- ELEMENTS

NODES- CORDINATES

Nodes	X	Y	Z
1	1.00E+00	0.00E+00	0.00E+00
2	8.75E-01	0.00E+00	0.00E+00
3	8.37E-01	0.00E+00	-1.69E-01
4	9.81E-01	0.00E+00	-1.95E-01
5	7.81E-01	0.00E+00	-3.30E-01
6	9.24E-01	0.00E+00	-3.83E-01
7	7.01E-01	0.00E+00	-4.77E-01
8	8.31E-01	0.00E+00	-5.56E-01
9	5.97E-01	0.00E+00	-6.03E-01
10	7.07E-01	0.00E+00	-7.07E-01
11	7.50E-01	0.00E+00	0.00E+00
12	7.10E-01	0.00E+00	-1.48E-01

13	6.60E-01	0.00E+00	-2.89E-01
14	5.94E-01	0.00E+00	-4.15E-01
15	5.09E-01	0.00E+00	-5.19E-01
16	6.25E-01	0.00E+00	0.00E+00
17	5.91E-01	0.00E+00	-1.34E-01
18	5.51E-01	0.00E+00	-2.59E-01
19	5.02E-01	0.00E+00	-3.69E-01
20	4.41E-01	0.00E+00	-4.53E-01
21	5.00E-01	0.00E+00	0.00E+00
22	4.74E-01	0.00E+00	-1.25E-01
23	4.47E-01	0.00E+00	-2.42E-01
24	4.19E-01	0.00E+00	-3.42E-01
25	3.96E-01	0.00E+00	-4.09E-01
26	3.75E-01	0.00E+00	0.00E+00
27	3.58E-01	0.00E+00	-1.21E-01
28	3.42E-01	0.00E+00	-2.37E-01
29	3.30E-01	0.00E+00	-3.41E-01
30	3.28E-01	0.00E+00	-4.30E-01
31	3.56E-01	0.00E+00	-5.11E-01
32	4.04E-01	0.00E+00	-6.00E-01
33	4.71E-01	0.00E+00	-7.04E-01
34	5.56E-01	0.00E+00	-8.31E-01
35	2.50E-01	0.00E+00	0.00E+00
36	2.41E-01	0.00E+00	-1.21E-01
37	2.32E-01	0.00E+00	-2.38E-01
38	2.27E-01	0.00E+00	-3.50E-01
39	2.31E-01	0.00E+00	-4.54E-01
40	2.49E-01	0.00E+00	-5.55E-01
41	2.80E-01	0.00E+00	-6.62E-01
42	3.25E-01	0.00E+00	-7.82E-01
43	3.83E-01	0.00E+00	-9.24E-01
44	1.25E-01	0.00E+00	0.00E+00
45	1.21E-01	0.00E+00	-1.22E-01
46	1.17E-01	0.00E+00	-2.44E-01
47	1.16E-01	0.00E+00	-3.62E-01
48	1.19E-01	0.00E+00	-4.77E-01
49	1.28E-01	0.00E+00	-5.92E-01
50	1.44E-01	0.00E+00	-7.11E-01
51	1.66E-01	0.00E+00	-8.37E-01
52	1.95E-01	0.00E+00	-9.81E-01
53	0.00E+00	0.00E+00	0.00E+00
54	0.00E+00	0.00E+00	-1.25E-01

55	0.00E+00	0.00E+00	-2.50E-01
56	0.00E+00	0.00E+00	-3.75E-01
57	0.00E+00	0.00E+00	-5.00E-01
58	0.00E+00	0.00E+00	-6.25E-01
59	0.00E+00	0.00E+00	-7.50E-01
60	0.00E+00	0.00E+00	-8.75E-01
61	0.00E+00	0.00E+00	-1.00E+00
62	-1.69E-01	0.00E+00	-8.37E-01
63	-1.95E-01	0.00E+00	-9.81E-01
64	-3.30E-01	0.00E+00	-7.81E-01
65	-3.83E-01	0.00E+00	-9.24E-01
66	-4.77E-01	0.00E+00	-7.01E-01
67	-5.56E-01	0.00E+00	-8.31E-01
68	-6.03E-01	0.00E+00	-5.97E-01
69	-7.07E-01	0.00E+00	-7.07E-01
70	-1.48E-01	0.00E+00	-7.10E-01
71	-2.89E-01	0.00E+00	-6.60E-01
72	-4.15E-01	0.00E+00	-5.94E-01
73	-5.19E-01	0.00E+00	-5.09E-01
74	-1.34E-01	0.00E+00	-5.91E-01
75	-2.59E-01	0.00E+00	-5.51E-01
76	-3.69E-01	0.00E+00	-5.02E-01
77	-4.53E-01	0.00E+00	-4.41E-01
78	-1.25E-01	0.00E+00	-4.74E-01
79	-2.42E-01	0.00E+00	-4.47E-01
80	-3.42E-01	0.00E+00	-4.19E-01
81	-4.09E-01	0.00E+00	-3.96E-01
82	-1.21E-01	0.00E+00	-3.58E-01
83	-2.37E-01	0.00E+00	-3.42E-01
84	-3.41E-01	0.00E+00	-3.30E-01
85	-4.30E-01	0.00E+00	-3.28E-01
86	-5.11E-01	0.00E+00	-3.56E-01
87	-6.00E-01	0.00E+00	-4.04E-01
88	-7.04E-01	0.00E+00	-4.71E-01
89	-8.31E-01	0.00E+00	-5.56E-01
90	-1.21E-01	0.00E+00	-2.41E-01
91	-2.38E-01	0.00E+00	-2.32E-01
92	-3.50E-01	0.00E+00	-2.27E-01
93	-4.54E-01	0.00E+00	-2.31E-01
94	-5.55E-01	0.00E+00	-2.49E-01
95	-6.62E-01	0.00E+00	-2.80E-01
96	-7.82E-01	0.00E+00	-3.25E-01

97	-9.24E-01	0.00E+00	-3.83E-01
98	-1.22E-01	0.00E+00	-1.21E-01
99	-2.44E-01	0.00E+00	-1.17E-01
100	-3.62E-01	0.00E+00	-1.16E-01
101	-4.77E-01	0.00E+00	-1.19E-01
102	-5.92E-01	0.00E+00	-1.28E-01
103	-7.11E-01	0.00E+00	-1.44E-01
104	-8.37E-01	0.00E+00	-1.66E-01
105	-9.81E-01	0.00E+00	-1.95E-01
106	-1.25E-01	0.00E+00	0.00E+00
107	-2.50E-01	0.00E+00	0.00E+00
108	-3.75E-01	0.00E+00	0.00E+00
109	-5.00E-01	0.00E+00	0.00E+00
110	-6.25E-01	0.00E+00	0.00E+00
111	-7.50E-01	0.00E+00	0.00E+00
112	-8.75E-01	0.00E+00	0.00E+00
113	-1.00E+00	0.00E+00	0.00E+00
114	-8.37E-01	0.00E+00	1.69E-01
115	-9.81E-01	0.00E+00	1.95E-01
116	-7.81E-01	0.00E+00	3.30E-01
117	-9.24E-01	0.00E+00	3.83E-01
118	-7.01E-01	0.00E+00	4.77E-01
119	-8.31E-01	0.00E+00	5.56E-01
120	-5.97E-01	0.00E+00	6.03E-01
121	-7.07E-01	0.00E+00	7.07E-01
122	-7.10E-01	0.00E+00	1.48E-01
123	-6.60E-01	0.00E+00	2.89E-01
124	-5.94E-01	0.00E+00	4.15E-01
125	-5.09E-01	0.00E+00	5.19E-01
126	-5.91E-01	0.00E+00	1.34E-01
127	-5.51E-01	0.00E+00	2.59E-01
128	-5.02E-01	0.00E+00	3.69E-01
129	-4.41E-01	0.00E+00	4.53E-01
130	-4.74E-01	0.00E+00	1.25E-01
131	-4.47E-01	0.00E+00	2.42E-01
132	-4.19E-01	0.00E+00	3.42E-01
133	-3.96E-01	0.00E+00	4.09E-01
134	-3.58E-01	0.00E+00	1.21E-01
135	-3.42E-01	0.00E+00	2.37E-01
136	-3.30E-01	0.00E+00	3.41E-01
137	-3.28E-01	0.00E+00	4.30E-01
138	-3.56E-01	0.00E+00	5.11E-01

139	-4.04E-01	0.00E+00	6.00E-01
140	-4.71E-01	0.00E+00	7.04E-01
141	-5.56E-01	0.00E+00	8.31E-01
142	-2.41E-01	0.00E+00	1.21E-01
143	-2.32E-01	0.00E+00	2.38E-01
144	-2.27E-01	0.00E+00	3.50E-01
145	-2.31E-01	0.00E+00	4.54E-01
146	-2.49E-01	0.00E+00	5.55E-01
147	-2.80E-01	0.00E+00	6.62E-01
148	-3.25E-01	0.00E+00	7.82E-01
149	-3.83E-01	0.00E+00	9.24E-01
150	-1.21E-01	0.00E+00	1.22E-01
151	-1.17E-01	0.00E+00	2.44E-01
152	-1.16E-01	0.00E+00	3.62E-01
153	-1.19E-01	0.00E+00	4.77E-01
154	-1.28E-01	0.00E+00	5.92E-01
155	-1.44E-01	0.00E+00	7.11E-01
156	-1.66E-01	0.00E+00	8.37E-01
157	-1.95E-01	0.00E+00	9.81E-01
158	0.00E+00	0.00E+00	1.25E-01
159	0.00E+00	0.00E+00	2.50E-01
160	0.00E+00	0.00E+00	3.75E-01
161	0.00E+00	0.00E+00	5.00E-01
162	0.00E+00	0.00E+00	6.25E-01
163	0.00E+00	0.00E+00	7.50E-01
164	0.00E+00	0.00E+00	8.75E-01
165	0.00E+00	0.00E+00	1.00E+00
166	1.69E-01	0.00E+00	8.37E-01
167	1.95E-01	0.00E+00	9.81E-01
168	3.30E-01	0.00E+00	7.81E-01
169	3.83E-01	0.00E+00	9.24E-01
170	4.77E-01	0.00E+00	7.01E-01
171	5.56E-01	0.00E+00	8.31E-01
172	6.03E-01	0.00E+00	5.97E-01
173	7.07E-01	0.00E+00	7.07E-01
174	1.48E-01	0.00E+00	7.10E-01
175	2.89E-01	0.00E+00	6.60E-01
176	4.15E-01	0.00E+00	5.94E-01
177	5.19E-01	0.00E+00	5.09E-01
178	1.34E-01	0.00E+00	5.91E-01
179	2.59E-01	0.00E+00	5.51E-01
180	3.69E-01	0.00E+00	5.02E-01

181	4.53E-01	0.00E+00	4.41E-01
182	1.25E-01	0.00E+00	4.74E-01
183	2.42E-01	0.00E+00	4.47E-01
184	3.42E-01	0.00E+00	4.19E-01
185	4.09E-01	0.00E+00	3.96E-01
186	1.21E-01	0.00E+00	3.58E-01
187	2.37E-01	0.00E+00	3.42E-01
188	3.41E-01	0.00E+00	3.30E-01
189	4.30E-01	0.00E+00	3.28E-01
190	5.11E-01	0.00E+00	3.56E-01
191	6.00E-01	0.00E+00	4.04E-01
192	7.04E-01	0.00E+00	4.71E-01
193	8.31E-01	0.00E+00	5.56E-01
194	1.21E-01	0.00E+00	2.41E-01
195	2.38E-01	0.00E+00	2.32E-01
196	3.50E-01	0.00E+00	2.27E-01
197	4.54E-01	0.00E+00	2.31E-01
198	5.55E-01	0.00E+00	2.49E-01
199	6.62E-01	0.00E+00	2.80E-01
200	7.82E-01	0.00E+00	3.25E-01
201	9.24E-01	0.00E+00	3.83E-01
202	1.22E-01	0.00E+00	1.21E-01
203	2.44E-01	0.00E+00	1.17E-01
204	3.62E-01	0.00E+00	1.16E-01
205	4.77E-01	0.00E+00	1.19E-01
206	5.92E-01	0.00E+00	1.28E-01
207	7.11E-01	0.00E+00	1.44E-01
208	8.37E-01	0.00E+00	1.66E-01
209	9.81E-01	0.00E+00	1.95E-01

ELEMENT INFORMATION

Element	Nodes			
1	1	2	3	4
2	4	3	5	6
3	6	5	7	8
4	8	7	9	10
5	2	11	12	3
6	3	12	13	5
7	5	13	14	7
8	7	14	15	9
9	11	16	17	12
10	12	17	18	13

11	13	18	19	14
12	14	19	20	15
13	16	21	22	17
14	17	22	23	18
15	18	23	24	19
16	19	24	25	20
17	21	26	27	22
18	22	27	28	23
19	23	28	29	24
20	24	29	30	25
21	25	30	31	20
22	20	31	32	15
23	15	32	33	9
24	9	33	34	10
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48	51	60	61	52
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57	59	58	74	70
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69	81	85	86	77
70	77	86	87	73
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72	68	88	89	69
73	56	55	90	82
74	82	90	91	83
75	83	91	92	84
76	84	92	93	85
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79	87	95	96	88
80	88	96	97	89
81	55	54	98	90
82	90	98	99	91
83	91	99	100	92
84	92	100	101	93
85	93	101	102	94
86	94	102	103	95
87	95	103	104	96
88	96	104	105	97
89	54	53	106	98
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93	101	109	110	102
94	102	110	111	103

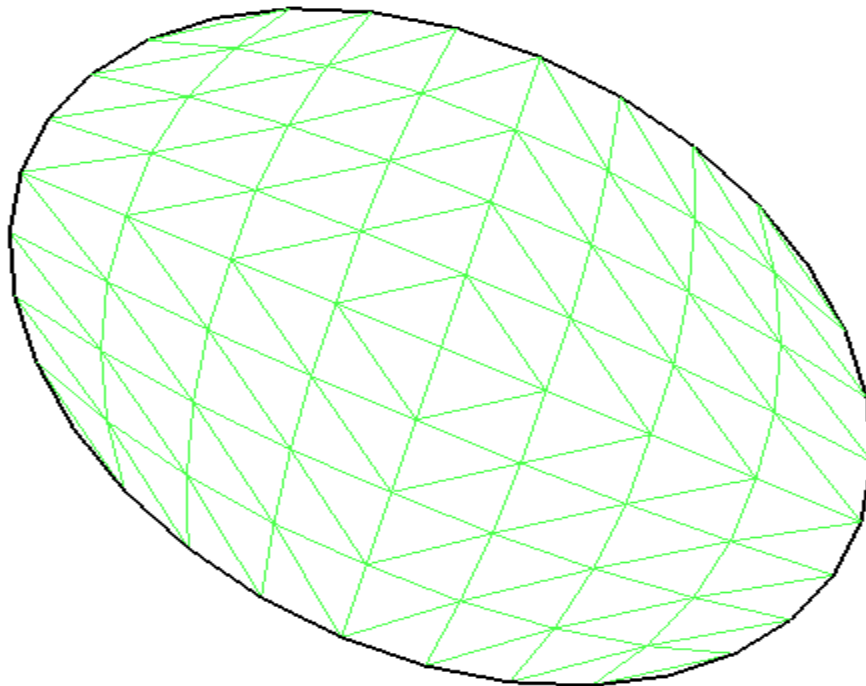
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128	140	148	149	141
129	107	106	150	142
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137	106	53	158	150
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158	178	182	183	179
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178	194	202	203	195

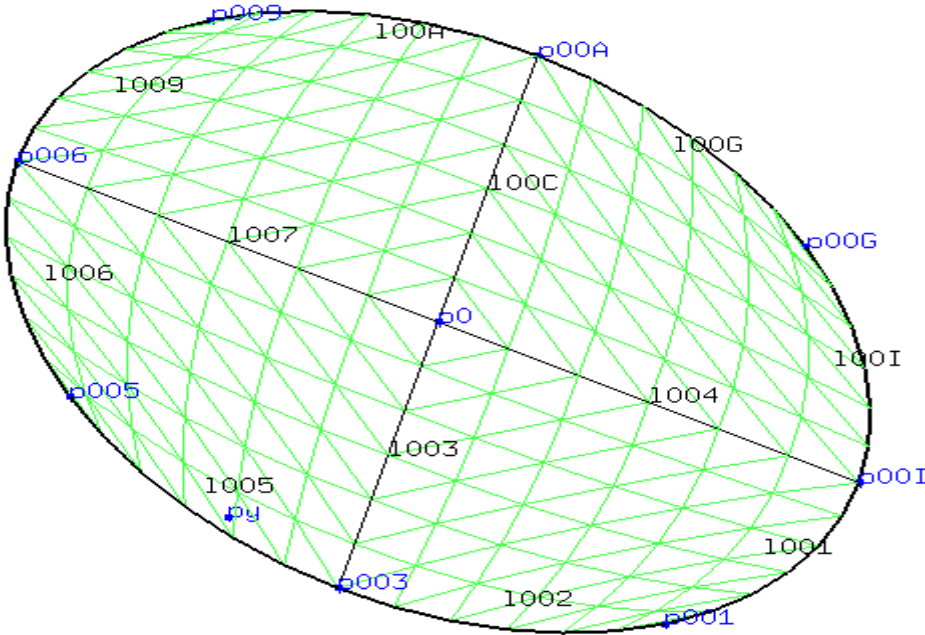
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183	199	207	208	200
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185	158	53	44	202
186	202	44	35	203
187	203	35	26	204
188	204	26	21	205
189	205	21	16	206
190	206	16	11	207
191	207	11	2	208
192	208	2	1	209

**5.5(B) DISC FROM EXAMPLES WITH TRIANGULAR
ELEMENTS
Element type TR3**

81-Nodes 128 Elements



169-Nodes 288 Elements



289-Nodes 512 Elements

