

μ_n для пластины

Таблица 1

B_i	μ_1	μ_2	μ_3	μ_4
0	0.000	3.142	6.283	9.425
0.001	0.032	3.142	6.283	9.425
0.002	0.045	3.142	6.283	9.425
0.004	0.063	3.143	6.284	9.425
0.006	0.077	3.143	6.284	9.425
0.008	0.089	3.144	6.284	9.426
0.01	0.100	3.145	6.285	9.426
0.02	0.141	3.148	6.286	9.427
0.04	0.199	3.154	6.289	9.429
0.06	0.242	3.161	6.293	9.431
0.08	0.279	3.167	6.296	9.435
0.1	0.311	3.173	6.299	9.435
0.2	0.433	3.204	6.315	9.446
0.4	0.593	3.264	6.346	9.467
0.6	0.705	3.320	6.377	9.488
0.8	0.791	3.374	6.407	9.509
1.0	0.860	3.426	6.427	9.529
1.5	0.988	3.542	6.510	9.580
2.0	1.077	3.644	6.578	9.630
3.0	1.192	3.809	6.704	9.724
4.0	1.265	3.935	6.814	9.812
5.0	1.314	4.034	6.910	9.893
6.0	1.350	4.112	6.992	9.967
7.0	1.377	4.175	7.064	10.03
8.0	1.398	4.226	7.126	10.09
9.0	1.415	4.269	7.181	10.15
10.0	1.429	4.306	7.228	10.20
15.0	1.473	4.425	7.396	10.39
20.0	1.496	4.491	7.495	10.51
30.0	1.520	4.561	7.606	10.65
40.0	1.532	4.598	7.665	10.73
50.0	1.540	4.620	7.701	10.78
60.7	1.545	4.635	7.726	10.82
80.0	1.551	4.654	7.757	10.86
100.0	1.555	4.666	7.776	10.89
∞	1.571	4.712	7.854	11.00

$$A_n = \frac{2 \sin \mu_n}{\mu_n + \sin \mu_n \cos \mu_n}$$

для пластины

Таблица 2

Bi	A ₁	A ₂	A ₃	A ₄
0	1.000	-0.000	0.000	-0.000
0.001	1.000	-0.000	0.000	-0.000
0.002	1.000	-0.000	0.000	-0.000
0.004	1.001	-0.001	0.000	-0.000
0.006	1.001	-0.001	0.000	-0.000
0.008	1.001	-0.002	0.000	-0.000
0.01	1.002	-0.002	0.000	-0.000
0.02	1.003	-0.004	0.001	-0.000
0.04	1.006	-0.008	0.002	-0.001
0.06	1.010	-0.012	0.003	-0.001
0.08	1.013	-0.016	0.004	-0.002
0.1	1.016	-0.020	0.005	-0.002
0.2	1.031	-0.038	0.010	-0.004
0.4	1.058	-0.072	0.020	-0.009
0.6	1.081	-0.102	0.029	-0.013
0.8	1.102	-0.128	0.038	-0.017
1.0	1.119	-0.152	0.047	-0.022
1.5	1.154	-0.201	0.067	-0.032
2.0	1.178	-0.237	0.085	-0.041
3.0	1.210	-0.288	0.115	-0.059
4.0	1.229	-0.322	0.140	-0.075
5.0	1.240	-0.344	0.159	-0.088
6.0	1.248	-0.360	0.174	-0.099
7.0	1.253	-0.372	0.186	-0.109
8.0	1.257	-0.381	0.196	-0.117
9.0	1.260	-0.388	0.204	-0.125
10.0	1.261	-0.393	0.210	-0.131
15.0	1.268	-0.408	0.232	-0.151
20.0	1.269	-0.415	0.239	-0.162
30.0	1.271	-0.420	0.247	-0.172
40.0	1.272	-0.422	0.250	-0.176
50.0	1.273	-0.423	0.252	-0.178
60.0	1.273	-0.423	0.253	-0.179
60.0	1.273	-0.424	0.253	-0.180
100.0	1.273	-0.424	0.254	-0.181
∞	1.273	-0.424	0.255	-0.182

μ_n для цилиндра

Таблица 3

B_i	μ_1	μ_2	μ_3	μ_4
0.0	0.000	3.832	7.016	10.17
0.01	0.141	3.834	7.017	10.17
0.02	0.199	3.837	7.018	10.18
0.04	0.281	3.842	7.021	10.18
0.06	0.344	3.847	7.024	10.18
0.08	0.396	3.852	7.027	10.18
0.10	0.442	3.858	7.030	10.18
0.15	0.538	3.871	7.037	10.19
0.20	0.617	3.883	7.044	10.19
0.30	0.746	3.909	7.058	10.20
0.40	0.852	3.934	7.072	10.21
0.50	0.941	3.959	7.086	10.22
0.60	1.018	3.984	7.100	10.23
0.70	1.087	4.008	7.114	10.24
0.80	1.149	4.032	7.128	10.25
0.90	1.205	4.056	7.142	10.26
1.0	1.256	4.079	7.156	10.27
1.5	1.457	4.190	7.223	10.32
2.0	1.599	4.201	7.288	10.37
3.0	1.789	4.463	7.410	10.46
4.0	1.908	4.602	7.520	10.54
5.0	1.990	4.713	7.618	10.62
6.0	2.049	4.803	7.700	10.70
7.0	2.094	4.877	7.780	10.76
8.0	2.129	4.938	7.846	10.83
9.0	2.157	4.990	7.905	10.88
10.0	2.179	5.033	7.957	10.94
15.0	2.251	5.177	8.142	11.14
20.0	2.288	5.257	8.253	11.27
30.0	2.326	5.341	8.377	11.42
40.0	2.345	5.385	8.443	11.51
50.0	2.357	5.411	8.484	11.56
60.0	2.365	5.429	8.512	11.60
80.0	2.375	5.452	8.547	11.65
100.0	2.385	5.465	8.568	11.67
∞	2.405	5.720	8.654	11.79

$$A_n = \frac{2I_1(\mu_n)}{\mu_n[I_0^2(\mu_n) + I_1^2(\mu_n)]}$$

для цилиндра

Таблица 4

Bi	A ₁	A ₂	A ₃	A ₄
0.0	1.0000	-0.0000	0.0000	-0.0000
0.01	1.0031	-0.0034	0.0013	-0.0008
0.02	1.0049	-0.0067	0.0027	-0.0015
0.04;	1.0102	-0.0135	0.0052	-0.0031
0.06	1.0150	-0.0201	0.0081	-0.0046
0.08	1.0199	-0.0268	0.0110	-0.0062
0.10	1.0245	-0.0333	0.0135	-0.0077
0.15	1.0366	-0.0497	0.0202	-0.0116
0.20	1.0482	-0.0653	0.0269	-0.0154
0.30	1.0711	-0.0972	0.0401	-0.0231
0.40	1.0931	-0.1277	0.0582	-0.0307
0.50	1.1142	-0.1571	0.0662	-0.0383
0.60	1.1345	-0.1857	0.0790	-0.0458
0.70	1.1539	-0.2132	0.0917	-0.0533
0.80	1.1724	-0.2398	0.1043	-0.0608
0.90	1.1902	-0.2654	0.1167	-0.0682
1.00	1.2071	-0.2901	0.1289	-0.0756
1.50	1.2807	-0.4008	0.1877	-0.1117
2.00	1.3377	-0.4923	0.2422	-0.1404
3.00	1.4192	-0.6309	0.3384	-0.2114
4.00	1.4698	-0.7278	0.4184	-0.2699
5.00	1.5029	-0.7973	0.4842	-0.3220
6.00	1.5253	-0.8484	0.5382	-0.3679
7.00	1.5409	-0.8869	0.5825	-0.4080
8.00	1.5523	-0.9225	0.6189	-0.4430
9.00	1.5611	-0.9393	0.6491	-0.4735
10.0	1.5677	-0.9575	0.6784	-0.5000
15.0	1.5853	-1.0091	0.7519	-0.5901
20.0	1.5918	-1.0309	0.7889	-0.6382
30.0	1.5964	-1.0488	0.8195	-0.6827
40.0	1.5988	-1.0550	0.8335	-0.7018
50.0	1.5996	-1.0587	0.8395	-0.7112
60.0	1.6009	-1.0589	0.8428	-0.7165
80.0	1.6012	-1.0599	0.8463	-0.7212
100.0	1.6014	-1.0631	0.8505	-0.7245
∞	1.6021	-1.0648	0.8558	-0.7296

Функции Бесселя I-ого рода нулевого I_0 и первого I_1 порядков Таблица 5

a	$I_0(a)$	$I_1(a)$	a	$I_0(a)$	$I_1(a)$
0.0	1.000	0.000	7.0	0.300	-0.005
0.1	0.997	0.050	7.2	0.295	0.054
0.2	0.990	0.100	7.4	0.279	0.110
0.4	0.960	0.196	7.6	0.252	0.159
0.6	0.912	0.287	7.8	0.215	0.201
0.8	0.846	0.369	8.0	0.172	0.236
1.0	0.765	0.440	8.2	0.122	0.258
1.2	0.671	0.498	8.4	0.069	0.271
1.4	0.567	0.542	8.6	0.015	0.273
1.6	0.455	0.570	8.8	-0.039	0.264
1.8	0.340	0.582	9.0	-0.090	0.245
2.0	0.224	0.577	9.2	-0.137	0.217
2.2	0.110	0.556	9.4	-0.177	0.182
2.4	0.002	0.520	9.6	-0.209	0.140
2.6	-0.097	0.471	9.8	-0.232	0.093
2.8	-0.185	0.410	10.0	-0.246	0.044
3.0	-0.260	0.339	10.2	-0.250	-0.007
3.2	-0.320	0.261	10.4	-0.243	-0.056
3.4	-0.364	0.179	10.6	-0.228	-0.101
3.6	-0.392	0.096	10.8	-0.203	-0.142
3.8	-0.403	0.013	11.0	-0.171	-0.177
4.0	-0.397	-0.066	11.2	-0.133	-0.204
4.2	-0.375	-0.139	11.4	-0.090	-0.222
4.4	-0.342	-0.203	11.6	-0.045	-0.232
4.6	-0.296	-0.267	11.8	0.002	-0.232
4.8	-0.240	-0.298	12.0	0.048	-0.223
5.0	-0.178	-0.328	12.2	0.091	-0.206
5.2	-0.110	-0.343	12.4	0.130	-0.181
5.4	-0.041	-0.345	12.6	0.163	-0.144
5.6	-0.027	-0.334	12.8	0.189	-0.111
5.8	-0.092	-0.314	13.0	0.207	0.070
6.0	0.151	-0.277	13.2	0.217	0.027
6.2	0.202	-0.233	13.4	0.218	0.017
6.4	0.243	-0.182	13.6	0.210	0.059
6.6	0.274	-0.125	13.8	0.194	0.098
6.6	0.293	-0.065	14.0	0.171	0.133