Tablo 1. Zamana bağlı ısı iletiminde kullanılan bağıntılar [1]

Sıcaklık dağılımı	Düzlemsel duvar	$\theta(x,t)_{\text{wall}} = \dfrac{T(x,t)-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau}\cos(\lambda_1 x/L), \quad \tau > 0.2$
	Silindir	$\theta(r,t)_{\text{cyl}} = \dfrac{T(r,t)-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau} J_0(\lambda_1 r/r_o), \quad \tau > 0.2$
	Küre	$\theta(r,t)_{\text{sph}} = \dfrac{T(r,t)-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau}\dfrac{\sin(\lambda_1 r/r_o)}{\lambda_1 r/r_o}, \quad \tau > 0.2$
Merkez sıcaklığı	Düzlemsel duvar	$\theta_{0,\text{ wall}} = \dfrac{T_o-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau}$
	Silindir	$\theta_{0,\text{ cyl}} = \dfrac{T_o-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau}$
	Küre	$\theta_{0,\text{ sph}} = \dfrac{T_o-T_\infty}{T_i-T_\infty} = A_1 e^{-\lambda_1^2\tau}$
Gerçek ısı transfer miktarının olabilecek maksimum ısı transferine oranı	Düzlemsel duvar	$\left(\dfrac{Q}{Q_{\max}}\right)_{\text{wall}} = 1 - \theta_{0,\text{ wall}}\dfrac{\sin\lambda_1}{\lambda_1}$
	Silindir	$\left(\dfrac{Q}{Q_{\max}}\right)_{\text{cyl}} = 1 - 2\theta_{0,\text{ cyl}}\dfrac{J_1(\lambda_1)}{\lambda_1}$
	Küre	$\left(\dfrac{Q}{Q_{\max}}\right)_{\text{sph}} = 1 - 3\theta_{0,\text{ sph}}\dfrac{\sin\lambda_1 - \lambda_1\cos\lambda_1}{\lambda_1^3}$

Tablo 2. Zamana bağlı tek boyutlu ısı iletiminde tek terim çözümünde kullanılan katsayılar (2L kalınlıklı düzlem duvar için Bi=hL/k, r_0 yarıçaplı silindir veya kürelerde Bi=hr_o/k) [1]

	Düzlemsel duvar		Silindir		Küre	
Bi	λ_1	A_1	λ_1	A_1	λ_1	A_1
0.01	0.0998	1.0017	0.1412	1.0025	0.1730	1.0030
0.02	0.1410	1.0033	0.1995	1.0050	0.2445	1.0060
0.04	0.1987	1.0066	0.2814	1.0099	0.3450	1.0120
0.06	0.2425	1.0098	0.3438	1.0148	0.4217	1.0179
0.08	0.2791	1.0130	0.3960	1.0197	0.4860	1.0239
0.1	0.3111	1.0161	0.4417	1.0246	0.5423	1.0298
0.2	0.4328	1.0311	0.6170	1.0483	0.7593	1.0592
0.3	0.5218	1.0450	0.7465	1.0712	0.9208	1.0880
0.4	0.5932	1.0580	0.8516	1.0931	1.0528	1.1164
0.5	0.6533	1.0701	0.9408	1.1143	1.1656	1.1441
0.6	0.7051	1.0814	1.0184	1.1345	1.2644	1.1713
0.7	0.7506	1.0918	1.0873	1.1539	1.3525	1.1978
0.8	0.7910	1.1016	1.1490	1.1724	1.4320	1.2236
0.9	0.8274	1.1107	1.2048	1.1902	1.5044	1.2488
1.0	0.8603	1.1191	1.2558	1.2071	1.5708	1.2732
2.0	1.0769	1.1785	1.5995	1.3384	2.0288	1.4793
3.0	1.1925	1.2102	1.7887	1.4191	2.2889	1.6227
4.0	1.2646	1.2287	1.9081	1.4698	2.4556	1.7202
5.0	1.3138	1.2403	1.9898	1.5029	2.5704	1.7870
6.0	1.3496	1.2479	2.0490	1.5253	2.6537	1.8338
7.0	1.3766	1.2532	2.0937	1.5411	2.7165	1.8673
8.0	1.3978	1.2570	2.1286	1.5526	2.7654	1.8920
9.0	1.4149	1.2598	2.1566	1.5611	2.8044	1.9106
10.0	1.4289	1.2620	2.1795	1.5677	2.8363	1.9249
20.0	1.4961	1.2699	2.2880	1.5919	2.9857	1.9781
30.0	1.5202	1.2717	2.3261	1.5973	3.0372	1.9898
40.0	1.5325	1.2723	2.3455	1.5993	3.0632	1.9942
50.0	1.5400	1.2727	2.3572	1.6002	3.0788	1.9962
100.0	1.5552	1.2731	2.3809	1.6015	3.1102	1.9990
∞	1.5708	1.2732	2.4048	1.6021	3.1416	2.0000

Tablo 3.Birinci tür Bessel fonksiyonlarının sıfırıncı birinci mertebeleri [1]

(λ)	$J_o(\lambda)$	$J_1(\lambda)$
0.0	1.0000	0.0000
0.1	0.9975	0.0499
0.2	0.9900	0.0995
0.3	0.9776	0.1483
0.4	0.9604	0.1960
0.5	0.9385	0.2423
0.6	0.9120	0.2867
0.7	0.8812	0.3290
0.8	0.8463	0.3688
0.9	0.8075	0.4059
1.0	0.7652	0.4400
1.1	0.7196	0.4709
1.2	0.6711	0.4983
1.3	0.6201	0.5220
1.4	0.5669	0.5419
1.5	0.5118	0.5579
1.6	0.4554	0.5699
1.7	0.3980	0.5778
1.8	0.3400	0.5815
1.9	0.2818	0.5812
2.0	0.2239	0.5767
2.1	0.1666	0.5683
2.2	0.1104	0.5560
2.3	0.0555	0.5399
2.4	0.0025	0.5202
2.6	−0.0968	−0.4708
2.8	−0.1850	−0.4097
3.0	−0.2601	−0.3391
3.2	−0.3202	−0.2613

REFERANS

[1] Yunus A. Çengel, Afshın J. Ghajar, Isı Ve Kütle Transferi Esas ve Uygulamalar, Palme Yayınevi, 4.Basım