

Berechnung einer Kette von Bogenstücken nach gegebenen Punkten

=====

Berechnung für Fehlergrenze: 0,05

Bemerkung: Für den Fall, dass der berechnete Krümmungsradius sehr gross ist, kann das zugehörige Bogenstück durch eine Gerade ersetzt werden.

Festlegung Heidenhain:

R- wenn großer Kreisbogen, d.h. > 180 Grad

R+ wenn kleiner Kreisbogen, d.h. < 180 Grad

Drehsinn DR+ falls mathematisch positiv, d.h. gegen den Uhrzeiger

Drehsinn DR- falls mathematisch negativ, d.h. mit dem Uhrzeiger

x-Wert	y-Wert	Radienfehler	Radienwinkel
0,000	30,000	0,000	90,394
0,100	30,000	-0,001	90,359
0,200	30,000	-0,001	90,324
0,300	30,000	-0,002	90,289
0,400	30,000	-0,003	90,254
0,500	29,999	-0,003	90,220
0,600	29,999	-0,004	90,185
0,700	29,999	-0,005	90,150
0,800	29,998	-0,005	90,115
0,900	29,998	-0,006	90,080
1,000	29,997	-0,006	90,046
1,100	29,997	-0,007	90,011
1,200	29,996	-0,008	89,976
1,300	29,995	-0,008	89,941
1,400	29,995	-0,009	89,906
1,500	29,994	-0,009	89,871
1,600	29,993	-0,010	89,837
1,700	29,992	-0,011	89,802
1,800	29,991	-0,011	89,767
1,900	29,990	-0,012	89,732
2,000	29,989	-0,012	89,697
2,100	29,988	-0,013	89,663
2,200	29,987	-0,013	89,628
2,300	29,986	-0,014	89,593
2,400	29,985	-0,014	89,558
2,500	29,983	-0,015	89,523
2,600	29,982	-0,015	89,489
2,700	29,981	-0,016	89,454

2,800	29,979	-0,016	89,419
2,900	29,978	-0,017	89,384
3,000	29,976	-0,017	89,349
3,100	29,974	-0,018	89,315
3,200	29,973	-0,018	89,280
3,300	29,971	-0,019	89,245
3,400	29,969	-0,019	89,210
3,500	29,967	-0,020	89,175
3,600	29,965	-0,020	89,141
3,700	29,963	-0,020	89,106
3,800	29,961	-0,021	89,071
3,900	29,959	-0,021	89,036
4,000	29,957	-0,022	89,001
4,100	29,955	-0,022	88,966
4,200	29,953	-0,022	88,932
4,300	29,951	-0,023	88,897
4,400	29,948	-0,023	88,862
4,500	29,946	-0,023	88,827
4,600	29,944	-0,024	88,792
4,700	29,941	-0,024	88,758
4,800	29,938	-0,024	88,723
4,900	29,936	-0,025	88,688
5,000	29,933	-0,025	88,653
5,100	29,931	-0,025	88,618
5,200	29,928	-0,026	88,583
5,300	29,925	-0,026	88,549
5,400	29,922	-0,026	88,514
5,500	29,919	-0,027	88,479
5,600	29,916	-0,027	88,444
5,700	29,913	-0,027	88,409
5,800	29,910	-0,027	88,375
5,900	29,907	-0,028	88,340
6,000	29,904	-0,028	88,305
6,100	29,901	-0,028	88,270
6,200	29,897	-0,028	88,235
6,300	29,894	-0,029	88,200
6,400	29,891	-0,029	88,166
6,500	29,887	-0,029	88,131
6,600	29,884	-0,029	88,096
6,700	29,880	-0,030	88,061
6,800	29,876	-0,030	88,026
6,900	29,873	-0,030	87,991
7,000	29,869	-0,030	87,957
7,100	29,865	-0,030	87,922
7,200	29,861	-0,031	87,887
7,300	29,858	-0,031	87,852

7,400	29,854	-0,031	87,817
7,500	29,850	-0,031	87,782
7,600	29,846	-0,031	87,748
7,700	29,841	-0,031	87,713
7,800	29,837	-0,031	87,678
7,900	29,833	-0,032	87,643
8,000	29,829	-0,032	87,608
8,100	29,825	-0,032	87,573
8,200	29,820	-0,032	87,539
8,300	29,816	-0,032	87,504
8,400	29,811	-0,032	87,469
8,500	29,807	-0,032	87,434
8,600	29,802	-0,032	87,399
8,700	29,797	-0,032	87,364
8,800	29,793	-0,032	87,329
8,900	29,788	-0,032	87,295
9,000	29,783	-0,032	87,260
9,100	29,778	-0,032	87,225
9,200	29,773	-0,033	87,190
9,300	29,768	-0,033	87,155
9,400	29,763	-0,033	87,120
9,500	29,758	-0,033	87,085
9,600	29,753	-0,033	87,051
9,700	29,748	-0,033	87,016
9,800	29,743	-0,033	86,981
9,900	29,737	-0,033	86,946
10,000	29,732	-0,033	86,911
10,100	29,727	-0,033	86,876
10,200	29,721	-0,033	86,841
10,300	29,716	-0,033	86,807
10,400	29,710	-0,033	86,772
10,500	29,705	-0,032	86,737
10,600	29,699	-0,032	86,702
10,700	29,693	-0,032	86,667
10,800	29,687	-0,032	86,632
10,900	29,681	-0,032	86,597
11,000	29,676	-0,032	86,563
11,100	29,670	-0,032	86,528
11,200	29,664	-0,032	86,493
11,300	29,658	-0,032	86,458
11,400	29,651	-0,032	86,423
11,500	29,645	-0,032	86,388
11,600	29,639	-0,032	86,353
11,700	29,633	-0,031	86,318
11,800	29,626	-0,031	86,284
11,900	29,620	-0,031	86,249

12,000	29,614	-0,031	86,214
12,100	29,607	-0,031	86,179
12,200	29,600	-0,031	86,144
12,300	29,594	-0,031	86,109
12,400	29,587	-0,031	86,074
12,500	29,580	-0,030	86,039
12,600	29,574	-0,030	86,004
12,700	29,567	-0,030	85,970
12,800	29,560	-0,030	85,935
12,900	29,553	-0,030	85,900
13,000	29,546	-0,029	85,865
13,100	29,539	-0,029	85,830
13,200	29,532	-0,029	85,795
13,300	29,525	-0,029	85,760
13,400	29,517	-0,029	85,725
13,500	29,510	-0,028	85,690
13,600	29,503	-0,028	85,656
13,700	29,495	-0,028	85,621
13,800	29,488	-0,028	85,586
13,900	29,480	-0,028	85,551
14,000	29,473	-0,027	85,516
14,100	29,465	-0,027	85,481
14,200	29,457	-0,027	85,446
14,300	29,450	-0,027	85,411
14,400	29,442	-0,026	85,376
14,500	29,434	-0,026	85,341
14,600	29,426	-0,026	85,306
14,700	29,418	-0,026	85,272
14,800	29,410	-0,025	85,237
14,900	29,402	-0,025	85,202
15,000	29,394	-0,025	85,167
15,100	29,386	-0,024	85,132
15,200	29,377	-0,024	85,097
15,300	29,369	-0,024	85,062
15,400	29,361	-0,023	85,027
15,500	29,352	-0,023	84,992
15,600	29,344	-0,023	84,957
15,700	29,335	-0,023	84,922
15,800	29,327	-0,022	84,887
15,900	29,318	-0,022	84,852
16,000	29,309	-0,022	84,817
16,100	29,301	-0,021	84,782
16,200	29,292	-0,021	84,748
16,300	29,283	-0,021	84,713
16,400	29,274	-0,020	84,678
16,500	29,265	-0,020	84,643

16,600	29,256	-0,019	84,608
16,700	29,247	-0,019	84,573
16,800	29,238	-0,019	84,538
16,900	29,228	-0,018	84,503
17,000	29,219	-0,018	84,468
17,100	29,210	-0,018	84,433
17,200	29,200	-0,017	84,398
17,300	29,191	-0,017	84,363
17,400	29,181	-0,016	84,328
17,500	29,172	-0,016	84,293
17,600	29,162	-0,016	84,258
17,700	29,153	-0,015	84,223
17,800	29,143	-0,015	84,188
17,900	29,133	-0,014	84,153
18,000	29,123	-0,014	84,118
18,100	29,113	-0,014	84,083
18,200	29,103	-0,013	84,048
18,300	29,093	-0,013	84,013
18,400	29,083	-0,012	83,978
18,500	29,073	-0,012	83,943
18,600	29,063	-0,012	83,908
18,700	29,053	-0,011	83,873
18,800	29,042	-0,011	83,838
18,900	29,032	-0,010	83,803
19,000	29,021	-0,010	83,768
19,100	29,011	-0,009	83,733
19,200	29,000	-0,009	83,698
19,300	28,990	-0,008	83,663
19,400	28,979	-0,008	83,628
19,500	28,968	-0,008	83,593
19,600	28,957	-0,007	83,558
19,700	28,947	-0,007	83,523
19,800	28,936	-0,006	83,488
19,900	28,925	-0,006	83,453
20,000	28,914	-0,005	83,418
20,100	28,903	-0,005	83,383
20,200	28,891	-0,004	83,348
20,300	28,880	-0,004	83,313
20,400	28,869	-0,003	83,278
20,500	28,858	-0,003	83,243
20,600	28,846	-0,002	83,208
20,700	28,835	-0,002	83,173
20,800	28,823	-0,001	83,138
20,900	28,812	-0,001	83,103
21,000	28,800	0,000	83,068
21,100	28,788	0,000	83,033

21,200	28,777	0,000	82,998
21,300	28,765	0,001	82,963
21,400	28,753	0,001	82,928
21,500	28,741	0,002	82,893
21,600	28,729	0,002	82,858
21,700	28,717	0,003	82,823
21,800	28,705	0,003	82,788
21,900	28,693	0,004	82,753
22,000	28,680	0,004	82,718
22,100	28,668	0,005	82,683
22,200	28,656	0,005	82,648
22,300	28,643	0,006	82,612
22,400	28,631	0,006	82,577
22,500	28,618	0,007	82,542
22,600	28,606	0,007	82,507
22,700	28,593	0,008	82,472
22,800	28,580	0,009	82,437
22,900	28,567	0,009	82,402
23,000	28,555	0,010	82,367
23,100	28,542	0,010	82,332
23,200	28,529	0,011	82,297
23,300	28,516	0,011	82,262
23,400	28,502	0,012	82,227
23,500	28,489	0,012	82,191
23,600	28,476	0,013	82,156
23,700	28,463	0,013	82,121
23,800	28,449	0,014	82,086
23,900	28,436	0,014	82,051
24,000	28,423	0,015	82,016
24,100	28,409	0,015	81,981
24,200	28,395	0,016	81,946
24,300	28,382	0,016	81,911
24,400	28,368	0,017	81,875
24,500	28,354	0,017	81,840
24,600	28,340	0,018	81,805
24,700	28,326	0,018	81,770
24,800	28,312	0,019	81,735
24,900	28,298	0,019	81,700
25,000	28,284	0,020	81,665
25,100	28,270	0,020	81,629
25,200	28,256	0,021	81,594
25,300	28,242	0,021	81,559
25,400	28,227	0,022	81,524
25,500	28,213	0,022	81,489
25,600	28,198	0,023	81,454
25,700	28,184	0,023	81,419

25,800	28,169	0,024	81,383
25,900	28,154	0,024	81,348
26,000	28,140	0,025	81,313
26,100	28,125	0,025	81,278
26,200	28,110	0,026	81,243
26,300	28,095	0,026	81,207
26,400	28,080	0,027	81,172
26,500	28,065	0,027	81,137
26,600	28,050	0,028	81,102
26,700	28,035	0,028	81,067
26,800	28,019	0,029	81,031
26,900	28,004	0,029	80,996
27,000	27,989	0,029	80,961
27,100	27,973	0,030	80,926
27,200	27,958	0,030	80,891
27,300	27,942	0,031	80,855
27,400	27,926	0,031	80,820
27,500	27,911	0,032	80,785
27,600	27,895	0,032	80,750
27,700	27,879	0,033	80,715
27,800	27,863	0,033	80,679
27,900	27,847	0,034	80,644
28,000	27,831	0,034	80,609
28,100	27,815	0,034	80,574
28,200	27,799	0,035	80,538
28,300	27,782	0,035	80,503
28,400	27,766	0,036	80,468
28,500	27,750	0,036	80,433
28,600	27,733	0,037	80,397
28,700	27,717	0,037	80,362
28,800	27,700	0,037	80,327
28,900	27,683	0,038	80,292
29,000	27,667	0,038	80,256
29,100	27,650	0,039	80,221
29,200	27,633	0,039	80,186
29,300	27,616	0,039	80,150
29,400	27,599	0,040	80,115
29,500	27,582	0,040	80,080
29,600	27,565	0,040	80,044
29,700	27,548	0,041	80,009
29,800	27,530	0,041	79,974
29,900	27,513	0,042	79,939
30,000	27,495	0,042	79,903
30,100	27,478	0,042	79,868
30,200	27,460	0,043	79,833
30,300	27,443	0,043	79,797

30,400	27,425	0,043	79,762
30,500	27,407	0,044	79,727
30,600	27,389	0,044	79,691
30,700	27,372	0,044	79,656
30,800	27,354	0,044	79,621
30,900	27,336	0,045	79,585
31,000	27,317	0,045	79,550
31,100	27,299	0,045	79,514
31,200	27,281	0,046	79,479
31,300	27,263	0,046	79,444
31,400	27,244	0,046	79,408
31,500	27,226	0,046	79,373
31,600	27,207	0,047	79,338
31,700	27,189	0,047	79,302
31,800	27,170	0,047	79,267
31,900	27,151	0,047	79,231
32,000	27,132	0,047	79,196
32,100	27,113	0,048	79,161
32,200	27,094	0,048	79,125
32,300	27,075	0,048	79,090
32,400	27,056	0,048	79,054
32,500	27,037	0,048	79,019
32,600	27,018	0,049	78,983
32,700	26,998	0,049	78,948
32,800	26,979	0,049	78,913
32,900	26,959	0,049	78,877
33,000	26,940	0,049	78,842
33,100	26,920	0,049	78,806
33,200	26,901	0,049	78,771
33,300	26,881	0,049	78,735
33,400	26,861	0,050	78,700
33,500	26,841	0,050	78,664
33,600	26,821	0,050	78,629
33,700	26,801	0,050	78,593
33,800	26,781	0,050	78,558
33,900	26,761	0,050	78,522
34,000	26,740	0,050	78,487
34,100	26,720	0,050	78,451
34,200	26,699	0,050	78,416
34,300	26,679	0,050	78,380
34,400	26,658	0,050	78,345
34,500	26,638	0,050	78,309
34,600	26,617	0,050	78,274
34,700	26,596	0,050	78,238
34,800	26,575	0,050	78,203
34,900	26,554	0,050	78,167

35,000	26,533	0,050	78,132
35,100	26,512	0,049	78,096
35,200	26,491	0,049	78,060
35,300	26,469	0,049	78,025
35,400	26,448	0,049	77,989
35,500	26,427	0,049	77,954
35,600	26,405	0,049	77,918
35,700	26,383	0,049	77,883
35,800	26,362	0,048	77,847
35,900	26,340	0,048	77,811
36,000	26,318	0,048	77,776
36,100	26,296	0,048	77,740
36,200	26,274	0,048	77,704
36,300	26,252	0,047	77,669
36,400	26,230	0,047	77,633
36,500	26,208	0,047	77,598
36,600	26,185	0,047	77,562
36,700	26,163	0,046	77,526
36,800	26,140	0,046	77,491
36,900	26,118	0,046	77,455
37,000	26,095	0,045	77,419
37,100	26,072	0,045	77,384
37,200	26,050	0,044	77,348
37,300	26,027	0,044	77,312
37,400	26,004	0,044	77,277
37,500	25,981	0,043	77,241
37,600	25,958	0,043	77,205
37,700	25,934	0,042	77,169
37,800	25,911	0,042	77,134
37,900	25,888	0,041	77,098
38,000	25,864	0,041	77,062
38,100	25,841	0,040	77,026
38,200	25,817	0,040	76,991
38,300	25,793	0,039	76,955
38,400	25,770	0,039	76,919
38,500	25,746	0,038	76,883
38,600	25,722	0,037	76,848
38,700	25,698	0,037	76,812
38,800	25,674	0,036	76,776
38,900	25,649	0,035	76,740
39,000	25,625	0,035	76,704
39,100	25,601	0,034	76,669
39,200	25,576	0,033	76,633
39,300	25,552	0,033	76,597
39,400	25,527	0,032	76,561
39,500	25,502	0,031	76,525

39,600	25,477	0,030	76,489
39,700	25,452	0,029	76,454
39,800	25,427	0,029	76,418
39,900	25,402	0,028	76,382
40,000	25,377	0,027	76,346
40,100	25,352	0,026	76,310
40,200	25,327	0,025	76,274
40,300	25,301	0,024	76,238
40,400	25,276	0,023	76,202
40,500	25,250	0,022	76,166
40,600	25,224	0,021	76,131
40,700	25,198	0,020	76,095
40,800	25,173	0,019	76,059
40,900	25,147	0,018	76,023
41,000	25,121	0,017	75,987
41,100	25,094	0,016	75,951
41,200	25,068	0,014	75,915
41,300	25,042	0,013	75,879
41,400	25,015	0,012	75,843
41,500	24,989	0,011	75,807
41,600	24,962	0,009	75,771
41,700	24,935	0,008	75,735
41,800	24,909	0,007	75,699
41,900	24,882	0,006	75,663
42,000	24,855	0,004	75,627
42,100	24,828	0,003	75,591
42,200	24,801	0,001	75,555
42,300	24,773	0,000	75,518

x-Koordinate Bogenmittelpunkt a = 1,131

y-Koordinate Bogenmittelpunkt b = -134,628

Bogenradius R = 164,632

42,300	24,773	0,000	75,618
42,400	24,746	-0,002	75,545
42,500	24,718	-0,003	75,472
42,600	24,691	-0,005	75,398
42,700	24,663	-0,006	75,325
42,800	24,635	-0,008	75,252
42,900	24,608	-0,009	75,179
43,000	24,580	-0,010	75,106
43,100	24,552	-0,012	75,032
43,200	24,523	-0,013	74,959
43,300	24,495	-0,014	74,886
43,400	24,467	-0,015	74,812
43,500	24,438	-0,017	74,739

43,600	24,410	-0,018	74,666
43,700	24,381	-0,019	74,592
43,800	24,353	-0,020	74,519
43,900	24,324	-0,021	74,446
44,000	24,295	-0,022	74,372
44,100	24,266	-0,023	74,299
44,200	24,237	-0,024	74,225
44,300	24,207	-0,025	74,152
44,400	24,178	-0,026	74,078
44,500	24,149	-0,026	74,005
44,600	24,119	-0,027	73,931
44,700	24,090	-0,028	73,857
44,800	24,060	-0,029	73,784
44,900	24,030	-0,029	73,710
45,000	24,000	-0,030	73,637
45,100	23,970	-0,030	73,563
45,200	23,940	-0,031	73,489
45,300	23,910	-0,031	73,415
45,400	23,879	-0,032	73,342
45,500	23,849	-0,032	73,268
45,600	23,818	-0,033	73,194
45,700	23,787	-0,033	73,120
45,800	23,757	-0,034	73,047
45,900	23,726	-0,034	72,973
46,000	23,695	-0,034	72,899
46,100	23,664	-0,035	72,825
46,200	23,632	-0,035	72,751
46,300	23,601	-0,035	72,677
46,400	23,570	-0,035	72,603
46,500	23,538	-0,035	72,529
46,600	23,506	-0,035	72,455
46,700	23,475	-0,035	72,381
46,800	23,443	-0,036	72,307
46,900	23,411	-0,036	72,233
47,000	23,379	-0,036	72,159
47,100	23,346	-0,036	72,085
47,200	23,314	-0,035	72,010
47,300	23,282	-0,035	71,936
47,400	23,249	-0,035	71,862
47,500	23,216	-0,035	71,788
47,600	23,184	-0,035	71,714
47,700	23,151	-0,035	71,639
47,800	23,118	-0,035	71,565
47,900	23,085	-0,034	71,491
48,000	23,051	-0,034	71,416
48,100	23,018	-0,034	71,342

48,200	22,984	-0,033	71,268
48,300	22,951	-0,033	71,193
48,400	22,917	-0,033	71,119
48,500	22,883	-0,032	71,044
48,600	22,849	-0,032	70,970
48,700	22,815	-0,031	70,895
48,800	22,781	-0,031	70,820
48,900	22,747	-0,030	70,746
49,000	22,712	-0,030	70,671
49,100	22,678	-0,029	70,597
49,200	22,643	-0,029	70,522
49,300	22,608	-0,028	70,447
49,400	22,573	-0,028	70,372
49,500	22,538	-0,027	70,298
49,600	22,503	-0,026	70,223
49,700	22,467	-0,026	70,148
49,800	22,432	-0,025	70,073
49,900	22,396	-0,024	69,998
50,000	22,361	-0,024	69,923
50,100	22,325	-0,023	69,848
50,200	22,289	-0,022	69,773
50,300	22,253	-0,021	69,698
50,400	22,217	-0,021	69,623
50,500	22,180	-0,020	69,548
50,600	22,144	-0,019	69,473
50,700	22,107	-0,018	69,398
50,800	22,070	-0,017	69,323
50,900	22,033	-0,016	69,248
51,000	21,996	-0,016	69,173
51,100	21,959	-0,015	69,097
51,200	21,922	-0,014	69,022
51,300	21,884	-0,013	68,947
51,400	21,847	-0,012	68,871
51,500	21,809	-0,011	68,796
51,600	21,771	-0,010	68,721
51,700	21,733	-0,009	68,645
51,800	21,695	-0,008	68,570
51,900	21,657	-0,007	68,494
52,000	21,619	-0,006	68,419
52,100	21,580	-0,005	68,343
52,200	21,541	-0,004	68,267
52,300	21,502	-0,003	68,192
52,400	21,463	-0,002	68,116
52,500	21,424	-0,001	68,040
52,600	21,385	0,000	67,964
52,700	21,346	0,001	67,889

52,800	21,306	0,002	67,813
52,900	21,266	0,003	67,737
53,000	21,226	0,004	67,661
53,100	21,186	0,005	67,585
53,200	21,146	0,006	67,509
53,300	21,106	0,007	67,433
53,400	21,065	0,008	67,357
53,500	21,025	0,010	67,281
53,600	20,984	0,011	67,205
53,700	20,943	0,012	67,128
53,800	20,902	0,013	67,052
53,900	20,861	0,014	66,976
54,000	20,819	0,015	66,900
54,100	20,778	0,016	66,823
54,200	20,736	0,017	66,747
54,300	20,694	0,018	66,670
54,400	20,652	0,019	66,594
54,500	20,610	0,020	66,517
54,600	20,567	0,021	66,441
54,700	20,525	0,022	66,364
54,800	20,482	0,023	66,287
54,900	20,439	0,024	66,211
55,000	20,396	0,025	66,134
55,100	20,353	0,026	66,057
55,200	20,309	0,027	65,980
55,300	20,266	0,028	65,903
55,400	20,222	0,029	65,826
55,500	20,178	0,030	65,749
55,600	20,134	0,031	65,672
55,700	20,090	0,032	65,595
55,800	20,045	0,033	65,518
55,900	20,001	0,034	65,441
56,000	19,956	0,035	65,364
56,100	19,911	0,036	65,286
56,200	19,866	0,036	65,209
56,300	19,820	0,037	65,132
56,400	19,775	0,038	65,054
56,500	19,729	0,039	64,977
56,600	19,683	0,040	64,899
56,700	19,637	0,040	64,821
56,800	19,591	0,041	64,744
56,900	19,544	0,042	64,666
57,000	19,498	0,042	64,588
57,100	19,451	0,043	64,510
57,200	19,404	0,044	64,432
57,300	19,356	0,044	64,354

57,400	19,309	0,045	64,276
57,500	19,261	0,045	64,198
57,600	19,213	0,046	64,120
57,700	19,165	0,046	64,042
57,800	19,117	0,047	63,964
57,900	19,069	0,047	63,885
58,000	19,020	0,048	63,807
58,100	18,971	0,048	63,728
58,200	18,922	0,048	63,650
58,300	18,873	0,049	63,571
58,400	18,823	0,049	63,493
58,500	18,773	0,049	63,414
58,600	18,723	0,049	63,335
58,700	18,673	0,049	63,256
58,800	18,623	0,049	63,177
58,900	18,572	0,049	63,098
59,000	18,521	0,049	63,019
59,100	18,470	0,049	62,940
59,200	18,419	0,049	62,861
59,300	18,367	0,049	62,782
59,400	18,316	0,049	62,702
59,500	18,264	0,048	62,623
59,600	18,211	0,048	62,543
59,700	18,159	0,048	62,464
59,800	18,106	0,047	62,384
59,900	18,053	0,047	62,304
60,000	18,000	0,046	62,224
60,100	17,947	0,046	62,144
60,200	17,893	0,045	62,064
60,300	17,839	0,044	61,984
60,400	17,785	0,043	61,904
60,500	17,730	0,042	61,824
60,600	17,675	0,042	61,743
60,700	17,620	0,040	61,663
60,800	17,565	0,039	61,582
60,900	17,510	0,038	61,502
61,000	17,454	0,037	61,421
61,100	17,398	0,036	61,340
61,200	17,342	0,034	61,259
61,300	17,285	0,033	61,178
61,400	17,228	0,031	61,097
61,500	17,171	0,030	61,016
61,600	17,113	0,028	60,935
61,700	17,056	0,026	60,853
61,800	16,998	0,024	60,772
61,900	16,939	0,022	60,690

62,000	16,881	0,020	60,609
62,100	16,822	0,018	60,527
62,200	16,763	0,016	60,445
62,300	16,703	0,013	60,363
62,400	16,643	0,011	60,281
62,500	16,583	0,008	60,198
62,600	16,523	0,006	60,116
62,700	16,462	0,003	60,033
62,800	16,401	0,000	59,951

x-Koordinate Bogenmittelpunkt a = 22,122
y-Koordinate Bogenmittelpunkt b = -53,916
Bogenradius R = 81,235

62,800	16,401	0,000	59,936
62,900	16,339	-0,003	59,725
63,000	16,278	-0,006	59,514
63,100	16,216	-0,008	59,302
63,200	16,153	-0,011	59,090
63,300	16,090	-0,013	58,877
63,400	16,027	-0,015	58,665
63,500	15,964	-0,017	58,451
63,600	15,900	-0,019	58,238
63,700	15,836	-0,020	58,024
63,800	15,771	-0,022	57,810
63,900	15,706	-0,023	57,595
64,000	15,641	-0,025	57,380
64,100	15,575	-0,026	57,165
64,200	15,509	-0,027	56,949
64,300	15,443	-0,028	56,733
64,400	15,376	-0,029	56,516
64,500	15,309	-0,029	56,299
64,600	15,241	-0,030	56,082
64,700	15,173	-0,030	55,864
64,800	15,105	-0,031	55,646
64,900	15,036	-0,031	55,427
65,000	14,967	-0,031	55,208
65,100	14,897	-0,031	54,988
65,200	14,827	-0,031	54,768
65,300	14,756	-0,030	54,548
65,400	14,685	-0,030	54,327
65,500	14,614	-0,029	54,105
65,600	14,542	-0,029	53,884
65,700	14,469	-0,028	53,661
65,800	14,396	-0,027	53,438
65,900	14,323	-0,027	53,215

66,000	14,249	-0,026	52,991
66,100	14,175	-0,025	52,767
66,200	14,100	-0,023	52,542
66,300	14,025	-0,022	52,316
66,400	13,949	-0,021	52,090
66,500	13,872	-0,019	51,864
66,600	13,795	-0,018	51,637
66,700	13,718	-0,016	51,409
66,800	13,640	-0,015	51,180
66,900	13,561	-0,013	50,951
67,000	13,482	-0,011	50,722
67,100	13,402	-0,010	50,491
67,200	13,322	-0,008	50,261
67,300	13,241	-0,006	50,029
67,400	13,159	-0,004	49,797
67,500	13,077	-0,002	49,564
67,600	12,994	0,000	49,330
67,700	12,910	0,002	49,095
67,800	12,826	0,004	48,860
67,900	12,741	0,006	48,624
68,000	12,655	0,008	48,387
68,100	12,569	0,010	48,150
68,200	12,482	0,013	47,911
68,300	12,394	0,015	47,672
68,400	12,306	0,017	47,432
68,500	12,216	0,019	47,191
68,600	12,126	0,021	46,949
68,700	12,035	0,023	46,706
68,800	11,944	0,025	46,462
68,900	11,851	0,027	46,217
69,000	11,758	0,029	45,971
69,100	11,663	0,031	45,724
69,200	11,568	0,033	45,475
69,300	11,472	0,035	45,226
69,400	11,375	0,037	44,976
69,500	11,277	0,039	44,724
69,600	11,177	0,040	44,471
69,700	11,077	0,042	44,216
69,800	10,976	0,043	43,961
69,900	10,874	0,045	43,704
70,000	10,770	0,046	43,445
70,100	10,666	0,047	43,185
70,200	10,560	0,048	42,924
70,300	10,453	0,048	42,661
70,400	10,345	0,049	42,396
70,500	10,235	0,049	42,129

70,600	10,124	0,049	41,861
70,700	10,012	0,049	41,591
70,800	9,898	0,049	41,319
70,900	9,783	0,048	41,045
71,000	9,666	0,047	40,769
71,100	9,548	0,046	40,490
71,200	9,428	0,045	40,210
71,300	9,306	0,043	39,927
71,400	9,183	0,041	39,641
71,500	9,058	0,038	39,353
71,600	8,930	0,035	39,062
71,700	8,801	0,032	38,769
71,800	8,670	0,028	38,472
71,900	8,536	0,024	38,172
72,000	8,400	0,019	37,868
72,100	8,262	0,013	37,562
72,200	8,121	0,007	37,251
72,300	7,977	0,000	36,936

x-Koordinate Bogenmittelpunkt a = 46,848
y-Koordinate Bogenmittelpunkt b = -11,158
Bogenradius R = 31,842

72,300	7,977	0,000	35,637
72,400	7,831	-0,003	34,934
72,500	7,681	-0,005	34,221
72,600	7,529	-0,007	33,498
72,700	7,372	-0,009	32,763
72,800	7,213	-0,010	32,016
72,900	7,049	-0,011	31,255
73,000	6,882	-0,011	30,481
73,100	6,710	-0,010	29,692
73,200	6,533	-0,010	28,886
73,300	6,351	-0,009	28,063
73,400	6,164	-0,007	27,220
73,500	5,970	-0,005	26,355
73,600	5,769	-0,003	25,467
73,700	5,561	0,000	24,552
73,800	5,345	0,003	23,607
73,900	5,119	0,006	22,629
74,000	4,883	0,010	21,611
74,100	4,634	0,014	20,548
74,200	4,370	0,017	19,432
74,300	4,089	0,021	18,252
74,400	3,787	0,025	16,993
74,500	3,458	0,029	15,633

74,600	3,094	0,032	14,139
74,700	2,681	0,034	12,456
74,800	2,189	0,035	10,474
74,900	1,549	0,031	7,909
75,000	0,000	0,000	1,761

x-Koordinate Bogenmittelpunkt a = 60,553

y-Koordinate Bogenmittelpunkt b = -0,444

Bogenradius R = 14,453