



World Para Swimming Point Scores 2018 – Long Course Events

Method to calculate the points for a specific performance is the Gompertz function:

$$G(p, a, b, c) = q = ae^{-e^{\frac{b-c}{p}}}$$

To calculate the required performance for given points, the inverse Gompertz function is

$$G^{-1}(q, a, b, c) = p = c / \left(b - \ln \left(\ln \left(\frac{a}{q} \right) \right) \right)$$

with performance p (in seconds), points q , and parameters a, b, c as given in the table below:

Senior Event	Class	a	b (Men)	c (Men)	b (Women)	c (Women)
50 m Freestyle	S1	1200	6.085619	497.641	5.372273	467.734
	S2	1200	6.085619	448.211	5.372273	432.125
	S3	1200	6.085619	335.106	5.372273	351.523
	S4	1200	6.085619	288.675	5.372273	281.817
	S5	1200	6.085619	250.368	5.372273	259.090
	S6	1200	6.085619	227.670	5.372273	236.309
	S7	1200	6.085619	217.731	5.372273	227.464
	S8	1200	6.085619	205.896	5.372273	214.651
	S9	1200	6.085619	198.774	5.372273	203.144
	S10	1200	6.085619	186.403	5.372273	195.492
	S11	1200	6.085619	199.121	5.372273	210.397
	S12	1200	6.085619	181.276	5.372273	185.492
	S13	1200	6.085619	182.173	5.372273	187.687
100 m Freestyle	S1	1200	6.106640	1035.009	5.450276	1043.784
	S2	1200	6.106640	999.009	5.450276	933.471
	S3	1200	6.106640	752.947	5.450276	742.931
	S4	1200	6.106640	631.816	5.450276	616.438
	S5	1200	6.106640	550.304	5.450276	565.859
	S6	1200	6.106640	508.599	5.450276	526.049
	S7	1200	6.106640	480.030	5.450276	493.576
	S8	1200	6.106640	449.448	5.450276	472.007
	S9	1200	6.106640	431.278	5.450276	446.149
	S10	1200	6.106640	406.019	5.450276	425.188
	S11	1200	6.106640	443.924	5.450276	468.274
	S12	1200	6.106640	396.880	5.450276	410.200
	S13	1200	6.106640	394.466	5.450276	412.233
S14	1200	6.106640	415.252	5.450276	424.369	
200 m Freestyle	S1	1200	5.579752	1993.861	5.311355	2314.402
	S2	1200	5.579752	1832.062	5.311355	2003.968
	S3	1200	5.579752	1419.353	5.311355	1456.427
	S4	1200	5.579752	1265.893	5.311355	1284.242
	S5	1200	5.579752	1111.156	5.311355	1179.595
	S6	1200	5.579752	1040.558	5.311355	1075.289
	S7	1200	5.579752	1001.148	5.311355	1075.943

International Paralympic Committee

Adenauerallee 212-214 Tel. +49 228 2097-200
53113 Bonn, Germany Fax +49 228 2097-209

www.paralympic.org
info@paralympic.org



	S8	1200	5.579752	933.311	5.311355	993.801
	S9	1200	5.579752	874.916	5.311355	971.127
	S10	1200	5.579752	829.297	5.311355	886.376
	S11	1200	5.579752	919.765	5.311355	980.321
	S12	1200	5.579752	872.449	5.311355	883.222
	S13	1200	5.579752	830.624	5.311355	906.220
	S14	1200	5.579752	841.708	5.311355	901.595
400 m Freestyle	S6	1200	7.005418	2611.555	7.079502	2849.958
	S7	1200	7.005418	2474.892	7.079502	2654.194
	S8	1200	7.005418	2295.963	7.079502	2568.267
	S9	1200	7.005418	2203.839	7.079502	2478.341
	S10	1200	7.005418	2076.460	7.079502	2356.214
	S11	1200	7.005418	2362.332	7.079502	2643.010
	S12	1200	7.005418	2103.855	7.079502	2314.967
	S13	1200	7.005418	2048.760	7.079502	2319.263
	S14	1200	7.005418	2115.614	7.079502	2364.752
800 m Freestyle	S6	1200	6.586088	5188.032	8.295154	6765.242
	S7	1200	6.586088	4956.641	8.295154	6721.091
	S8	1200	6.586088	4333.472	8.295154	6537.961
	S9	1200	6.586088	4251.498	8.295154	5590.183
	S10	1200	6.586088	4274.037	8.295154	5492.645
	S11	n/a	6.586088	4922.120	8.295154	6524.952
	S12	n/a	6.586088	4422.681	8.295154	6036.072
	S13	1200	6.586088	4347.468	8.295154	5543.440
	S14	1200	6.586088	4141.538	8.295154	5675.134
1500 m Freestyle	S6	1200	7.342622	12138.656	8.830078	17119.444
	S7	1200	7.342622	10731.857	8.830078	13613.532
	S8	1200	7.342622	9650.167	8.830078	12989.377
	S9	1200	7.342622	9377.819	8.830078	12199.567
	S10	1200	7.342622	8390.956	8.830078	12520.813
	S11	n/a	7.342622	10329.934	8.830078	13665.666
	S12	n/a	7.342622	10284.621	8.830078	14234.186
	S13	1200	7.342622	8912.186	8.830078	11310.381
	S14	1200	7.342622	9167.036	8.830078	11906.535
50 m Backstroke	S1	1200	4.743070	419.781	4.536677	395.172
	S2	1200	4.743070	354.560	4.536677	367.712
	S3	1200	4.743070	303.662	4.536677	338.936
	S4	1200	4.743070	273.823	4.536677	299.092
	S5	1200	4.743070	243.440	4.536677	282.383
	S6	1200	4.743070	233.190	4.536677	258.944
	S7	1200	4.743070	213.358	4.536677	240.420
	S8	1200	4.743070	195.801	4.536677	227.155
	S9	1200	4.743070	190.126	4.536677	206.277
	S10	1200	4.743070	175.891	4.536677	192.446
	S11	1200	4.743070	195.305	4.536677	217.380
	S12	1200	4.743070	169.458	4.536677	198.983
	S13	1200	4.743070	169.950	4.536677	197.901



100 m Backstroke	S1	1200	6.042172	1045.671	5.981491	1077.418
	S2	1200	6.042172	861.880	5.981491	972.499
	S3	1200	6.042172	788.765	5.981491	906.125
	S4	1200	6.042172	789.046	5.981491	759.518
	S5	1200	6.042172	676.854	5.981491	736.679
	S6	1200	6.042172	573.575	5.981491	649.904
	S7	1200	6.042172	538.064	5.981491	621.404
	S8	1200	6.042172	510.808	5.981491	592.689
	S9	1200	6.042172	483.479	5.981491	547.453
	S10	1200	6.042172	460.617	5.981491	511.190
	S11	1200	6.042172	500.978	5.981491	585.800
	S12	1200	6.042172	434.840	5.981491	506.342
	S13	1200	6.042172	435.559	5.981491	510.669
	S14	1200	6.042172	478.985	5.981491	519.570
200 m Backstroke	S6	1200	6.909066	1419.890	7.602339	1701.345
	S7	1200	6.909066	1351.640	7.602339	1551.653
	S8	1200	6.909066	1277.124	7.602339	1608.100
	S9	1200	6.909066	1162.813	7.602339	1435.254
	S10	1200	6.909066	1080.660	7.602339	1359.299
	S11	1200	6.909066	1321.250	7.602339	1485.218
	S12	1200	6.909066	1119.999	7.602339	1411.945
	S13	1200	6.909066	1142.015	7.602339	1417.218
	S14	1200	6.909066	1136.263	7.602339	1350.139
50 m Breaststroke	SB1	1200	4.934172	545.303	4.390342	619.684
	SB2	1200	4.934172	330.291	4.390342	401.428
	SB3	1200	4.934172	299.600	4.390342	329.097
	SB4	1200	4.934172	266.286	4.390342	289.777
	SB5	1200	4.934172	267.020	4.390342	267.138
	SB6	1200	4.934172	231.795	4.390342	261.499
	SB7	1200	4.934172	233.042	4.390342	269.247
	SB8	1200	4.934172	209.402	4.390342	224.923
	SB9	1200	4.934172	202.421	4.390342	210.557
	SB11	1200	4.934172	216.174	4.390342	227.106
	SB12	1200	4.934172	197.369	4.390342	208.975
	SB13	1200	4.934172	195.063	4.390342	221.348
100 m Breaststroke	SB1	n/a	4.895422	593.371	5.063325	1351.776
	SB2	1200	4.895422	833.729	5.063325	1106.879
	SB3	1200	4.895422	710.919	5.063325	966.826
	SB4	1200	4.895422	593.162	5.063325	725.338
	SB5	1200	4.895422	598.703	5.063325	680.225
	SB6	1200	4.895422	522.225	5.063325	642.295
	SB7	1200	4.895422	506.740	5.063325	610.493
	SB8	1200	4.895422	456.162	5.063325	533.120
	SB9	1200	4.895422	433.734	5.063325	524.302
	SB11	1200	4.895422	476.968	5.063325	578.400
	SB12	1200	4.895422	425.048	5.063325	502.142
	SB13	1200	4.895422	422.844	5.063325	513.611



	SB14	1200	4.895422	439.296	5.063325	522.744
200 m Breaststroke	SB4	1200	7.061841	1736.623	7.863558	2253.453
	SB5	1200	7.061841	1713.739	7.863558	2141.646
	SB6	1200	7.061841	1496.196	7.863558	1947.611
	SB7	1200	7.061841	1460.261	7.863558	1720.707
	SB8	1200	7.061841	1317.503	7.863558	1646.717
	SB9	1200	7.061841	1233.090	7.863558	1599.802
	SB11	1200	7.061841	1438.307	7.863558	1717.606
	SB12	1200	7.061841	1382.617	7.863558	1614.216
	SB13	1200	7.061841	1284.366	7.863558	1566.461
	SB14	1200	7.061841	1298.070	7.863558	1618.095
50 m Butterfly	S1	n/a	5.109763	804.740	4.316235	391.184
	S2	1200	5.109763	492.652	4.316235	390.902
	S3	1200	5.109763	374.263	4.316235	346.656
	S4	1200	5.109763	266.273	4.316235	278.263
	S5	1200	5.109763	238.989	4.316235	247.696
	S6	1200	5.109763	207.538	4.316235	209.527
	S7	1200	5.109763	205.931	4.316235	203.048
	S8	1200	5.109763	190.529	4.316235	190.684
	S9	1200	5.109763	181.146	4.316235	180.592
	S10	1200	5.109763	170.227	4.316235	173.861
	S11	1200	5.109763	176.757	4.316235	193.990
	S12	1200	5.109763	167.144	4.316235	172.167
	S13	1200	5.109763	172.013	4.316235	175.277
100 m Butterfly	S5	1200	6.626357	596.738	5.647805	822.845
	S6	1200	6.626357	580.223	5.647805	597.109
	S7	1200	6.626357	605.031	5.647805	549.250
	S8	1200	6.626357	487.786	5.647805	494.546
	S9	1200	6.626357	482.341	5.647805	481.196
	S10	1200	6.626357	460.499	5.647805	469.762
	S11	1200	6.626357	493.049	5.647805	549.590
	S12	1200	6.626357	451.880	5.647805	462.721
	S13	1200	6.626357	447.057	5.647805	450.715
	S14	1200	6.626357	476.342	5.647805	485.144
200 m Butterfly	S8	1200	9.512268	1521.619	11.484226	2168.827
	S9	1200	9.512268	1453.390	11.484226	2011.242
	S10	1200	9.512268	1438.002	11.484226	1950.400
	S11	1200	9.512268	1565.179	11.484226	2253.919
	S12	1200	9.512268	1422.918	11.484226	2195.899
	S13	n/a	9.512268	1554.071	11.484226	2002.721
	S14	1200	9.512268	1486.406	11.484226	2016.391
150 m Individual Medley	SM1	n/a	5.405696	2505.173	4.146418	1929.972
	SM2	1200	5.405696	1741.090	4.146418	1680.820
	SM3	1200	5.405696	1201.468	4.146418	1093.529
	SM4	1200	5.405696	1029.897	4.146418	981.580
200 m Individual Medley	SM3	n/a	7.101033	2377.167	6.758125	2508.338
	SM4	1200	7.101033	1682.124	6.758125	2501.569



	SM5	1200	7.101033	1645.522	6.758125	1702.031
	SM6	1200	7.101033	1417.864	6.758125	1516.296
	SM7	1200	7.101033	1349.283	6.758125	1468.840
	SM8	1200	7.101033	1243.619	6.758125	1363.426
	SM9	1200	7.101033	1190.684	6.758125	1285.180
	SM10	1200	7.101033	1130.742	6.758125	1234.902
	SM11	1200	7.101033	1236.235	6.758125	1400.730
	SM12	1200	7.101033	1103.991	6.758125	1234.513
	SM13	1200	7.101033	1117.019	6.758125	1217.485
	SM14	1200	7.101033	1153.779	6.758125	1233.356
400 m Individual	SM8	1200	8.572328	3076.547	8.516632	3716.455
Medley	SM9	1200	8.572328	3054.316	8.516632	3241.995
	SM10	1200	8.572328	3059.232	8.516632	3240.716
	SM11	1200	8.572328	3313.358	8.516632	3743.590
	SM12	n/a	8.572328	2946.775	8.516632	3368.260
	SM13	1200	8.572328	3027.942	8.516632	3314.471
	SM14	1200	8.572328	2962.845	8.516632	3124.888

Youth Point Scores 2018

For youth events, the formula as shown above does not change apart from an adjustment of the c factor to reflect the performance difference between top performers at major international Para swimming competitions and the average of performances expected at youth events.

Method to calculate the points for a specific performance remains the Gompertz function with an additional static factor applicable to all genders, events, and classes:

$$G(p, a, b, c) = q = ae^{-e^{b-1.2 \cdot \frac{c}{p}}}$$

To calculate the required performance for given points, the inverse Gompertz function is

$$G^{-1}(q, a, b, c) = p = 1.2 \cdot c / \left(b - \ln \left(\ln \left(\frac{a}{q} \right) \right) \right)$$

with performance p (in seconds), points q , and parameters a, b, c as listed on pages 1-5 in this document.