



World Para Swimming Point Scores 2019 – 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	6.064541	502.820	5.390115	477.094
	S2	1200	6.064541	446.152	5.390115	432.642
	S3	1200	6.064541	335.018	5.390115	351.236
	S4	1200	6.064541	287.984	5.390115	274.968
	S5	1200	6.064541	248.470	5.390115	258.190
	S6	1200	6.064541	227.534	5.390115	236.457
	S7	1200	6.064541	217.203	5.390115	227.499
	S8	1200	6.064541	205.335	5.390115	215.369
	S9	1200	6.064541	197.979	5.390115	203.420
	S10	1200	6.064541	186.049	5.390115	195.328
	S11	1200	6.064541	198.753	5.390115	209.553
	S12	1200	6.064541	181.532	5.390115	186.501
	S13	1200	6.064541	181.711	5.390115	187.662
100 m Freestyle	S1	1200	6.058020	1045.629	5.406429	1062.597
	S2	1200	6.058020	987.956	5.406429	930.178
	S3	1200	6.058020	749.827	5.406429	650.647
	S4	1200	6.058020	626.385	5.406429	602.978
	S5	1200	6.058020	543.523	5.406429	562.009
	S6	1200	6.058020	504.794	5.406429	519.138
	S7	1200	6.058020	476.292	5.406429	489.200
	S8	1200	6.058020	446.762	5.406429	469.530
	S9	1200	6.058020	427.648	5.406429	443.386
	S10	1200	6.058020	403.510	5.406429	421.364
	S11	1200	6.058020	441.157	5.406429	462.892
	S12	1200	6.058020	396.414	5.406429	407.448
	S13	1200	6.058020	392.822	5.406429	408.912
S14	1200	6.058020	412.264	5.406429	421.082	
200 m Freestyle	S1	1200	5.603436	2000.534	5.333631	1969.096
	S2	1200	5.603436	1841.824	5.333631	2019.133
	S3	1200	5.603436	1426.943	5.333631	1461.896
	S4	1200	5.603436	1279.594	5.333631	1268.489
	S5	1200	5.603436	1113.418	5.333631	1178.335
	S6	1200	5.603436	1050.872	5.333631	1067.370
	S7	1200	5.603436	1002.988	5.333631	1071.557

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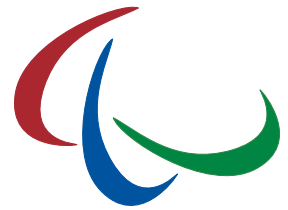
	S8	1200	5.603436	933.128	5.333631	990.436
	S9	1200	5.603436	880.447	5.333631	976.961
	S10	1200	5.603436	833.365	5.333631	892.305
	S11	1200	5.603436	920.128	5.333631	974.932
	S12	1200	5.603436	868.890	5.333631	883.602
	S13	1200	5.603436	818.319	5.333631	904.890
	S14	1200	5.603436	841.850	5.333631	904.273
400 m Freestyle	S6	1200	6.917563	2591.828	7.016470	2802.913
	S7	1200	6.917563	2441.517	7.016470	2640.183
	S8	1200	6.917563	2272.909	7.016470	2545.758
	S9	1200	6.917563	2177.598	7.016470	2459.358
	S10	1200	6.917563	2059.557	7.016470	2337.366
	S11	1200	6.917563	2352.417	7.016470	2614.324
	S12	1200	6.917563	2087.920	7.016470	2298.259
	S13	1200	6.917563	2029.093	7.016470	2303.045
	S14	1200	6.917563	2179.017	7.016470	2354.630
800 m Freestyle	S6	1200	6.893406	5380.402	9.043773	7271.847
	S7	1200	6.893406	5108.475	9.043773	7048.088
	S8	1200	6.893406	4488.918	9.043773	6947.840
	S9	1200	6.893406	4409.142	9.043773	5996.363
	S10	1200	6.893406	4419.690	9.043773	5973.327
	S11	1200	6.893406	4693.993	9.043773	7013.562
	S12	1200	6.893406	4683.998	9.043773	6488.073
	S13	1200	6.893406	4529.360	9.043773	5913.382
	S14	1200	6.893406	4305.567	9.043773	6172.625
1500 m Freestyle	S6	1200	7.377413	12774.659	9.376334	18007.362
	S7	1200	7.377413	10773.138	9.376334	13524.188
	S8	1200	7.377413	9687.287	9.376334	13663.084
	S9	1200	7.377413	9339.137	9.376334	12832.310
	S10	1200	7.377413	8349.273	9.376334	12908.016
	S11	1200	7.377413	10369.669	9.376334	14374.449
	S12	1200	7.377413	10324.182	9.376334	14972.457
	S13	1200	7.377413	8946.468	9.376334	11897.005
	S14	1200	7.377413	9187.412	9.376334	12502.879
50 m Backstroke	S1	1200	4.673769	415.344	4.400493	393.606
	S2	1200	4.673769	350.758	4.400493	358.923
	S3	1200	4.673769	298.474	4.400493	318.504
	S4	1200	4.673769	272.326	4.400493	292.740
	S5	1200	4.673769	237.930	4.400493	259.469
	S6	1200	4.673769	230.426	4.400493	251.017
	S7	1200	4.673769	210.780	4.400493	234.876
	S8	1200	4.673769	193.724	4.400493	220.054
	S9	1200	4.673769	187.840	4.400493	201.161
	S10	1200	4.673769	174.079	4.400493	188.554
	S11	1200	4.673769	193.571	4.400493	212.078
	S12	1200	4.673769	168.854	4.400493	193.036
	S13	1200	4.673769	168.749	4.400493	192.482



100 m Backstroke	S1	1200	6.041018	1038.455	5.973927	1105.081
	S2	1200	6.041018	854.985	5.973927	962.969
	S3	1200	6.041018	777.025	5.973927	912.904
	S4	1200	6.041018	791.544	5.973927	777.785
	S5	1200	6.041018	683.014	5.973927	725.845
	S6	1200	6.041018	573.045	5.973927	645.112
	S7	1200	6.041018	537.549	5.973927	618.092
	S8	1200	6.041018	511.418	5.973927	589.934
	S9	1200	6.041018	482.502	5.973927	545.773
	S10	1200	6.041018	460.654	5.973927	510.375
	S11	1200	6.041018	503.035	5.973927	581.543
	S12	1200	6.041018	437.178	5.973927	508.223
	S13	1200	6.041018	435.290	5.973927	504.392
	S14	1200	6.041018	476.923	5.973927	519.871
200 m Backstroke	S6	1200	7.131985	1456.648	7.470780	1657.844
	S7	1200	7.131985	1387.965	7.470780	1538.286
	S8	1200	7.131985	1319.090	7.470780	1571.949
	S9	1200	7.131985	1196.309	7.470780	1416.268
	S10	1200	7.131985	1113.502	7.470780	1345.771
	S11	1200	7.131985	1327.561	7.470780	1495.780
	S12	1200	7.131985	1159.583	7.470780	1350.967
	S13	1200	7.131985	1141.144	7.470780	1384.952
	S14	1200	7.131985	1164.994	7.470780	1345.231
50 m Breaststroke	SB1	1200	4.889779	552.320	4.387967	577.007
	SB2	1200	4.889779	325.754	4.387967	402.284
	SB3	1200	4.889779	298.230	4.387967	327.974
	SB4	1200	4.889779	266.319	4.387967	288.550
	SB5	1200	4.889779	265.892	4.387967	266.254
	SB6	1200	4.889779	230.067	4.387967	261.691
	SB7	1200	4.889779	231.142	4.387967	266.004
	SB8	1200	4.889779	206.985	4.387967	223.661
	SB9	1200	4.889779	201.488	4.387967	209.312
	SB11	1200	4.889779	211.814	4.387967	225.315
	SB12	1200	4.889779	197.154	4.387967	208.374
	SB13	1200	4.889779	192.310	4.387967	220.871
100 m Breaststroke	SB1	1200	4.892255	1391.978	5.041677	1347.451
	SB2	1200	4.892255	836.879	5.041677	1103.337
	SB3	1200	4.892255	709.497	5.041677	976.802
	SB4	1200	4.892255	600.311	5.041677	718.027
	SB5	1200	4.892255	593.122	5.041677	673.795
	SB6	1200	4.892255	520.909	5.041677	637.886
	SB7	1200	4.892255	506.711	5.041677	605.146
	SB8	1200	4.892255	456.157	5.041677	536.047
	SB9	1200	4.892255	434.970	5.041677	523.865
	SB11	1200	4.892255	477.960	5.041677	572.566
	SB12	1200	4.892255	427.897	5.041677	501.370
	SB13	1200	4.892255	422.914	5.041677	508.859



	SB14	1200	4.892255	438.810	5.041677	521.432
200 m Breaststroke	SB4	1200	7.127330	1750.295	8.011452	2288.295
	SB5	1200	7.127330	1708.962	8.011452	2158.885
	SB6	1200	7.127330	1509.862	8.011452	1977.724
	SB7	1200	7.127330	1454.568	8.011452	1770.058
	SB8	1200	7.127330	1329.768	8.011452	1679.948
	SB9	1200	7.127330	1252.036	8.011452	1615.256
	SB11	1200	7.127330	1452.553	8.011452	1760.958
	SB12	1200	7.127330	1392.949	8.011452	1612.596
	SB13	1200	7.127330	1277.262	8.011452	1587.735
	SB14	1200	7.127330	1296.515	8.011452	1643.697
50 m Butterfly	S1	1200	5.122765	806.276	4.372197	589.907
	S2	1200	5.122765	484.423	4.372197	394.537
	S3	1200	5.122765	365.597	4.372197	341.925
	S4	1200	5.122765	264.567	4.372197	282.301
	S5	1200	5.122765	237.805	4.372197	250.090
	S6	1200	5.122765	208.773	4.372197	210.771
	S7	1200	5.122765	205.942	4.372197	205.492
	S8	1200	5.122765	190.232	4.372197	192.673
	S9	1200	5.122765	181.461	4.372197	181.675
	S10	1200	5.122765	171.608	4.372197	175.866
	S11	1200	5.122765	176.796	4.372197	196.244
	S12	1200	5.122765	167.923	4.372197	173.571
	S13	1200	5.122765	170.738	4.372197	176.183
100 m Butterfly	S5	1200	6.648402	608.150	5.729829	832.028
	S6	1200	6.648402	586.604	5.729829	607.128
	S7	1200	6.648402	606.573	5.729829	562.445
	S8	1200	6.648402	488.537	5.729829	499.463
	S9	1200	6.648402	484.493	5.729829	486.690
	S10	1200	6.648402	462.141	5.729829	473.004
	S11	1200	6.648402	492.058	5.729829	553.578
	S12	1200	6.648402	453.512	5.729829	464.913
	S13	1200	6.648402	448.455	5.729829	456.645
	S14	1200	6.648402	476.001	5.729829	488.980
200 m Butterfly	S8	1200	9.313711	1499.893	12.117066	2258.634
	S9	1200	9.313711	1395.538	12.117066	2115.329
	S10	1200	9.313711	1410.117	12.117066	2026.830
	S11	1200	9.313711	1537.466	12.117066	2362.090
	S12	1200	9.313711	1397.724	12.117066	2301.286
	S13	1200	9.313711	1329.579	12.117066	1990.910
	S14	1200	9.313711	1448.574	12.117066	2109.101
150 m Individual Medley	SM1	1200	5.331007	2132.965	4.164211	1324.821
	SM2	1200	5.331007	1709.940	4.164211	1677.711
	SM3	1200	5.331007	1186.792	4.164211	1091.036
	SM4	1200	5.331007	1021.647	4.164211	985.568
200 m Individual Medley	SM3	1200	7.177825	2397.903	6.752383	2506.635
	SM4	1200	7.177825	1720.589	6.752383	2499.872



	SM5	1200	7.177825	1660.532	6.752383	1695.936
	SM6	1200	7.177825	1430.831	6.752383	1508.486
	SM7	1200	7.177825	1358.326	6.752383	1468.389
	SM8	1200	7.177825	1258.048	6.752383	1360.559
	SM9	1200	7.177825	1201.247	6.752383	1287.129
	SM10	1200	7.177825	1141.906	6.752383	1229.621
	SM11	1200	7.177825	1251.389	6.752383	1393.986
	SM12	1200	7.177825	1119.260	6.752383	1228.862
	SM13	1200	7.177825	1129.155	6.752383	1214.587
	SM14	1200	7.177825	1163.656	6.752383	1232.214
400 m Individual	SM8	1200	8.660392	3102.916	8.409237	3677.396
Medley	SM9	1200	8.660392	3119.336	8.409237	3217.358
	SM10	1200	8.660392	3085.068	8.409237	3161.731
	SM11	1200	8.660392	3283.884	8.409237	3548.027
	SM12	1200	8.660392	2972.033	8.409237	3332.860
	SM13	1200	8.660392	3053.896	8.409237	3132.729
	SM14	1200	8.660392	2966.367	8.409237	3119.791

Youth Point Scores 2019

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 of 1.2 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.