

## Measurement of Total Protein by a Single Serum Sample

### Question

Using a standard curve, determine the total protein content (mg/dL) of a serum sample. The only standard for a total protein assay is the International Standardized Reference for Serum Protein, which is available in Europe.

### Task

Standard	Protein Concentration (mg/dL)	Optical Density
1	0	0.000
2	10	0.020
3	20	0.040
4	30	0.060
5	40	0.080
6	50	0.100
7	60	0.120
8	70	0.140
9	80	0.160
10	90	0.180
11	100	0.200
12	110	0.220
13	120	0.240
14	130	0.260
15	140	0.280
16	150	0.300
17	160	0.320
18	170	0.340
19	180	0.360
20	190	0.380
21	200	0.400
22	210	0.420
23	220	0.440
24	230	0.460
25	240	0.480
26	250	0.500
27	260	0.520
28	270	0.540
29	280	0.560
30	290	0.580
31	300	0.600
32	310	0.620
33	320	0.640
34	330	0.660
35	340	0.680
36	350	0.700
37	360	0.720
38	370	0.740
39	380	0.760
40	390	0.780
41	400	0.800
42	410	0.820
43	420	0.840
44	430	0.860
45	440	0.880
46	450	0.900
47	460	0.920
48	470	0.940
49	480	0.960
50	490	0.980
51	500	1.000
52	510	1.020
53	520	1.040
54	530	1.060
55	540	1.080
56	550	1.100
57	560	1.120
58	570	1.140
59	580	1.160
60	590	1.180
61	600	1.200
62	610	1.220
63	620	1.240
64	630	1.260
65	640	1.280
66	650	1.300
67	660	1.320
68	670	1.340
69	680	1.360
70	690	1.380
71	700	1.400
72	710	1.420
73	720	1.440
74	730	1.460
75	740	1.480
76	750	1.500
77	760	1.520
78	770	1.540
79	780	1.560
80	790	1.580
81	800	1.600
82	810	1.620
83	820	1.640
84	830	1.660
85	840	1.680
86	850	1.700
87	860	1.720
88	870	1.740
89	880	1.760
90	890	1.780
91	900	1.800
92	910	1.820
93	920	1.840
94	930	1.860
95	940	1.880
96	950	1.900
97	960	1.920
98	970	1.940
99	980	1.960
100	990	1.980
101	1000	2.000

### Standard Deviation