



Lab A4-3 *Predicting 1-RM (Repetitions Maximum) from Weight Training Workouts*

To assess your strength level and track the progress of your strength training program, you can use data from your weight training workouts to calculate 1-RM. On your workout card, record the amount of weight you lift and the number of repetitions you can complete using that weight. Perform as many repetitions that you can using correct form for each exercise. Use the table on the following page to determine the 1-RM that corresponds to the amount of weight and number of repetitions you lifted. Fill in the following chart to use this method to track your strength gains in major muscle groups as your strength training program progresses. Fill in additional exercises as needed.

	Date _____			Date _____			Date _____		
Exercise	Weight	Reps	1-RM	Weight	Reps	1-RM	Weight	Reps	1-RM
Bench press									
Overhead press									
Lat pull									
Biceps curl									
Leg press									
Leg extension									

To use the following table to determine 1-RM, find the weight you lifted in the left column and move across the row until you reach the column for the number of repetitions you performed; the number in the corresponding row and column is your 1-RM for that exercise.

Wt (lb)	Repetitions											
	1	2	3	4	5	6	7	8	9	10	11	12
20	20	21	21	22	23	23	24	25	26	27	28	29
25	25	26	26	27	28	29	30	31	32	33	35	36
30	30	31	32	33	34	35	36	37	39	40	42	43
35	35	36	37	38	39	41	42	43	45	47	48	50
40	40	41	42	44	45	46	48	50	51	53	55	58
45	45	46	48	49	51	52	54	56	58	60	62	65
50	50	51	53	55	56	58	60	62	64	67	69	72

LAB A4-3 (continued)

Wt (lb)	Repetitions											
	1	2	3	4	5	6	7	8	9	10	11	12
55	55	57	58	60	62	64	66	68	71	73	76	79
60	60	62	64	65	68	70	72	74	77	80	83	86
65	65	67	69	71	73	75	78	81	84	87	90	94
70	70	72	74	76	79	81	84	87	90	93	97	101
75	75	77	79	82	84	87	90	93	96	100	104	108
80	80	82	85	87	90	93	96	99	103	107	111	115
85	85	87	90	93	96	99	102	106	109	113	118	122
90	90	93	95	98	101	105	108	112	116	120	125	130
95	95	98	101	104	107	110	114	118	122	127	132	137
100	100	103	106	109	113	116	120	124	129	133	139	144
105	105	108	111	115	118	122	126	130	135	140	145	151
110	110	113	116	120	124	128	132	137	141	147	152	158
115	115	118	122	125	129	134	138	143	148	153	159	166
120	120	123	127	131	135	139	144	149	154	160	166	173
125	125	129	132	136	141	145	150	155	161	167	173	180
130	130	134	138	142	146	151	156	161	167	173	180	187
135	135	139	143	147	152	157	162	168	174	180	187	194
140	140	144	148	153	158	163	168	174	180	187	194	202
145	145	149	154	158	163	168	174	180	186	193	201	209
150	150	154	159	164	169	174	180	186	193	200	208	216
155	155	159	164	169	174	180	186	192	199	207	215	223
160	160	165	169	175	180	186	192	199	206	213	222	230
165	165	170	175	180	186	192	198	205	212	220	229	238
170	170	175	180	185	191	197	204	211	219	227	235	245
175	175	180	185	191	197	203	210	217	225	233	242	252
180	180	185	191	196	203	209	216	223	231	240	249	259
185	185	190	196	202	208	215	222	230	238	247	256	266
190	190	195	201	207	214	221	228	236	244	253	263	274
195	195	201	206	213	219	226	234	242	251	260	270	281
200	200	206	212	218	225	232	240	248	257	267	277	288
205	205	211	217	224	231	238	246	255	264	273	284	295
210	210	216	222	229	236	244	252	261	270	280	291	303
215	215	221	228	235	242	250	258	267	276	287	298	310
220	220	226	233	240	248	256	264	273	283	293	305	317
225	225	231	238	245	253	261	270	279	289	300	312	324
230	230	237	244	251	259	267	276	286	296	307	319	331
235	235	242	249	256	264	273	282	292	302	313	325	339
240	240	247	254	262	270	279	288	298	309	320	332	346
245	245	252	259	267	276	285	294	304	315	327	339	353
250	250	257	265	273	281	290	300	310	322	333	346	360
255	255	262	270	278	287	296	306	317	328	340	353	367
260	260	267	275	284	293	302	312	323	334	347	360	375
265	265	273	281	289	298	308	318	329	341	353	367	382
270	270	278	286	295	304	314	324	335	347	360	374	389
275	275	283	291	300	309	319	330	341	354	367	381	396
280	280	288	296	305	315	325	336	348	360	373	388	403
285	285	293	302	311	321	331	342	354	367	380	395	411
290	290	298	307	316	326	337	348	360	373	387	402	418
295	295	303	312	322	332	343	354	366	379	393	409	425
300	300	309	318	327	338	348	360	372	386	400	416	432

Table generated using the Brzycki equation: $1\text{-RM} = \text{weight (kg)} / (1.0278 - (0.0278 \times \text{repetitions}))$.

Source: Adapted from Brzycki, M. 1993. Strength testing: Predicting a one-rep max from a reps-to-fatigue. *Journal of Physical Education, Recreation, and Dance* 64: 88-90.