IGMAND HAMMER THROW

Lithuania is a small country, so often in different age groups participate one, two athletes only (in some age groups there are no sportsmen). Thus, yearly age coefficients are not only desirable, they are necessary in Lithuania. We hope that other countries will use the Lithuanian yearly age coefficients too.

Yearly age coefficients are determined using the exponential function: $k = A \cdot e^{a+b \cdot m^n}$. In equation: *k* is yearly age coefficient, *A* is the coefficient, which evaluates the increase of result (decrease of yearly age coefficient) when the mass of shots is changing, *m* is the age of the athlete (in years) at the time of sport event (it is calculated by deducting athlete's birthday from the first day of the competition), *a* and *b* are coefficients that depend on the statistically obtained averages of the results in age groups, *n* is the exponent.

Men	Women
$k = A \cdot e^{(-0{,}07350)+0{,}00001496 m^{2,5}}$	$k = A \cdot e^{(-0{,}0735)+0{,}00001496 \cdot m^{2,5}}$
when $m \le 49$, then *A*=1.0000, when $50 \le m \le 69$, then *A*=0.6800, when $m \ge 70$, then *A*=0.5080.	For all groups *A*=1.0000.

Note. Yearly age coefficients are presented in the table. Their meanings are rounded to four significant digits. These rounded meanings should be used on computer programs; otherwise the results calculated using the formula given and results presented in the table will differ slightly.

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Yearly age coefficients

Men	Age	Women
1.000	30	1.000
1.007	31	1.007
1.013	32	1.013
1.020	33	1.020
1.028	34	1.028
1.036	35	1.036
1.044	36	1.044
1.052	37	1.052
1.061	38	1.061
1.071	39	1.071
1.081	40	1.081
1.091	41	1.091
1.102	42	1.102
1.114	43	1.114
1.126	44	1.126
1.139	45	1.139
1.152	46	1.152
1.165	47	1.165
1.180	48	1.180
1.195	49	1.195
0.823	50	1.210
0.835	51	1.227
0.846	52	1.244
0.858	53	1.262
0.871	54	1.280
0.884	55	1.300
0.898	56	1.320
0.912	57	1.341
0.927	58	1.363
0.943	59	1.386
0.959	60	1.410
0.976	61	1.435
0.994	62	1.461
1.013	63	1.489
1.032	64	1.517
1.052	65	1.547
1.073	66	1.578
1.095	67	1.610
1.118	68	1.644
1.142	69	1.679
0.871	70	1.716
0.890	71	1.754
0.911	72	1.794
0.932	73	1.836
0.954	74	1.880
0.978	75	1.926
1.002	76	1.973
1.027	77	2.023
1.054	78	2.076
1.082	79	2.130
1.111	80	2.188
1.141	81	2.248
1.173	82	2.310
1.206	83	2.376
1.241	84	2.445
1.278	85	2.517
1.316	86	2.592
1.356	87	2.672
1.398	88	2.755
1.443	89	2.842