Earthquake magnitude estimation by measuring the time duration of shaking.

Assumes one is close enough to the source or epicenter to feel the majority of the motion and how long it lasts. It also assumes one has a way of timing it and that the motion is not so severe that one cannot start and end the timing process. P-wave is the initial jolt. S-wave starts when the shaking steps up in amplitude or gets stronger.

Measured Duration Time of Shaking	Estimated Magnitude		Measured Time Between S and P Waves	Estimated Distance To Epicenter (Miles)
0:00:01	5		0:00:00	0
0:00:02	5.2		0:00:04	20
0:00:02	5.4		0:00:08	40
0:00:03	5.6		0:00:12	60
0:00:04	5.8		0:00:17	80
0:00:05	6		0:00:21	100
0:00:06	6.2		0:00:40	200
0:00:08	6.4		0:00:59	300
0:00:10	6.6		0:01:18	400
0:00:14	6.8		0:01:35	500
0:00:18	7		0:01:52	600
0:00:23	7.2		0:02:08	700
0:00:30	7.4		0:02:24	800
0:00:38	7.6		0:02:39	900
0:00:50	7.8		0:02:53	1000
0:01:05	8		0:03:21	1200
0:01:24	8.2		0:03:46	1400
0:01:49	8.4		0:04:11	1600
0:02:22	8.6		0:04:33	1800
0:03:04	8.8		0:04:55	2000
0:03:59	9		0:05:16	2200
0:05:10	9.2		0:05:37	2400
0:06:43	9.4		0:05:57	2600
0:08:43	9.6		0:06:17	2800
0:11:19	9.8		0:06:38	3000
0:14:41	10		0:06:59	3200
0:19:04	10.2		0:07:21	3400
0:24:45	10.4		0:07:44	3600
0:32:07	10.6		0:08:08	3800
0:41:42	10.8		0:08:34	4000
0:54:08	11		0:09:47	4500
1:10:16	11.2		0:11:15	5000
1:31:14	11.4		0:13:03	5500
1:58:25	11.6		0:15:14	6000
2:33:44	11.8		0:17:53	6500
3:19:34	12		0:21:04	7000