

Reproportioning Scales up to base 20 at a limit of 16 steps approximated to one decimal place																	
Base	Step	Scale															
10	1	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
11	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	11.0	12.1	13.2	14.3	15.4	16.5	17.6	18.7
12	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	13.2	14.4	15.6	16.8	18.0	19.2	20.4
13	1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7	13.0	14.3	15.6	16.9	18.2	19.5	20.8	22.1
14	1.4	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6	14.0	15.4	16.8	18.2	19.6	21.0	22.4	23.8
15	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	15.0	16.5	18.0	19.5	21.0	22.5	24.0	25.5
16	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2	20.8	22.4	24.0	25.6	27.2
17	1.7	3.4	5.1	6.8	8.5	10.2	11.9	13.6	15.3	17.0	18.7	20.4	22.1	23.8	25.5	27.2	28.9
18	1.8	3.6	5.4	7.2	9.0	10.8	12.6	14.4	16.2	18.0	19.8	21.6	23.4	25.2	27.0	28.8	30.6
19	1.9	3.8	5.7	7.6	9.5	11.4	13.3	15.2	17.1	19.0	20.9	22.8	24.7	26.6	28.5	30.4	32.3
20	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0	34.0

Reproportioning Harmonics up to base 20 at a limit of 16 partials from a fundamental frequency of 20 hertz																	
Base	Series																
10	20	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340
11	20	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374
12	20	48	72	96	120	144	168	192	216	240	264	288	312	336	360	384	408
13	20	52	78	104	130	156	182	208	234	260	286	312	338	364	390	416	442
14	20	56	84	112	140	168	196	224	252	280	308	336	364	392	420	448	476
15	20	60	90	120	150	180	210	240	270	300	330	360	390	420	450	480	510
16	20	64	96	128	160	192	224	256	288	320	352	384	416	448	480	512	544
17	20	68	102	136	170	204	238	272	306	340	374	408	442	476	510	544	578
18	20	72	108	144	180	216	252	288	324	360	396	432	468	504	540	576	612
19	20	76	114	152	190	228	266	304	342	380	418	456	494	532	570	608	646
20	20	80	120	160	200	240	280	320	360	400	440	480	520	560	600	640	680

Reproportioning Chromatic Collections up to base 20 rounded to the nearest eighth tone (notated as integer steps where 1 = one half step)													
Base	Collection												
10	0	1	2	3	4	5	6	7	8	9	10	11	12
11	0	1	2.25	3.25	4.5	5.5	6.5	7.75	8.75	10	11	12	13.25
12	0	1.25	2.5	3.5	4.75	6	7.25	8.5	9.5	10.75	12	13.25	14.5
13	0	1.25	2.5	4	5.25	6.5	7.75	9	10.5	11.75	13	14.25	15.5
14	0	1.5	2.75	4.25	5.5	7	8.5	9.75	11.25	12.5	14	15.5	16.75
15	0	1.5	3	4.5	6	7.5	9	10.5	12	13.5	15	16.5	18
16	0	1.5	3.25	4.75	6.5	8	9.5	11.25	12.75	14.5	16	17.5	19.25
17	0	1.75	3.5	5	6.75	8.5	10.25	12	13.5	15.25	17	18.75	20.5
18	0	1.75	3.5	5.5	7.25	9	10.75	12.5	14.5	16.25	18	19.75	21.5
19	0	2	3.75	5.75	7.5	9.5	11.5	13.25	15.25	17	19	21	22.75
20	0	2	4	6	8	10	12	14	16	18	20	22	24