

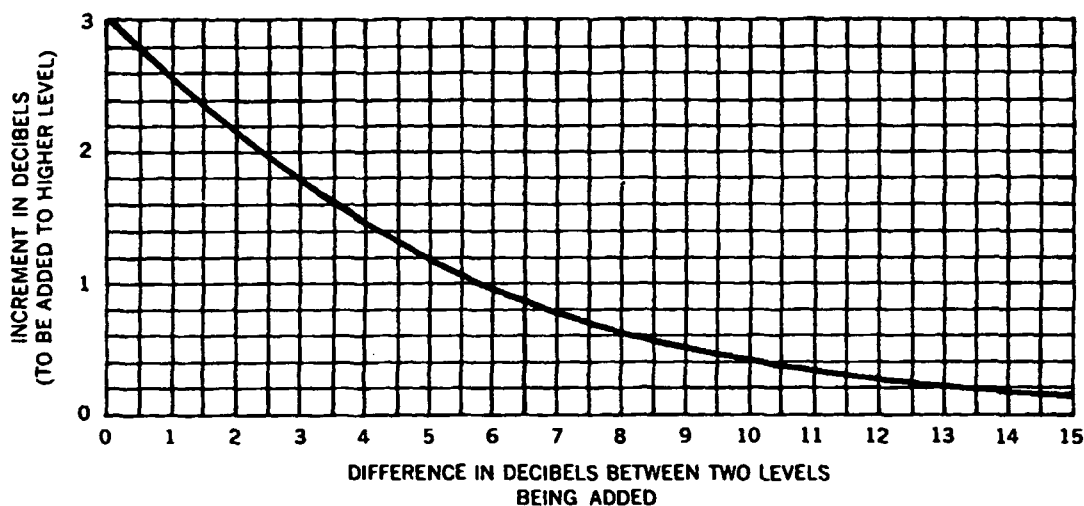


Figure 1910.95-2. Chart for combining noise levels

value calculated in (4) as the highest value, and the next-highest-remaining-value in (u) as the "next highest value"

(6) Repeat step (5) progressively until all values determined in (u) of this subparagraph have been added. The result is the overall A-weighted level at the eardrum while wearing the protectors

Sample calculation

1—							
Octave band frequency (Hz)	125	250	500	1000	2000	4000	8000
2—							
Measured sound level (dB)	91	92	94	96	100	98	92
3—							
A-weighting adjustments (dB)	-16	-9	-3	0	+1	+1	-1
4—							
A-weighted sound level (dB)	75	83	91	96	101	99	91
5—							
Mean reduction of hearing protector (dB)	-12	-18	-24	-33	-34	-42	-25
6—							
Adjust for two standard deviations from Manufacturers data	4	6	8	10	10	4	4
7—							
Net reduction	-8	-12	-16	-23	-24	-38	-21

8—
A-weighted level at eardrum 67 71 75 73 77 61 70

9—
Add A-weighted values

Step	Pair	Difference	Increment from curve	New "Highest Value"
1	77 -75	2	2 15	79 15
2	79 15-73	6 15	0 95	80 10
3	80 10-71	9 10	0 50	80 60
4	80 60-70	10 60	0 40	81 00
5	81 00-67	14 00	0 20	81 20
6	81 20-61	20 20	Neg	81 20+

Round to nearest dB (81)

10—
Reduction factor "R" = 104 - 81 = 23 dB

(3) *Method 3—Approximate reduction factor "R" using A-weighted sound level* If only an A-weighted sound level for the environment is available, an approximation of the hearing protector attenuation factor "R" may be arrived at, using Method 2 ((2) of this paragraph) and assuming a "pink" noise with a level of 100 dB in each octave band, and using the average attenuation *without* correction for