

	<u>All the same</u>				<u>All the same</u>				<u>Product Sum</u>		
	Rtotal	resistor	number		Rtotal	resistor	number		Rt	R1	R2
1		30Ω	2	26		1500Ω	6	51		2Ω	4Ω
2		30	4	27		1500	8	52		6	8
3		30	6	28		2000	4	53		10	12
4		30	8	29		2000	6	54		22	12
5		30	10	30		2000	8	55		40	60
6		120	12	31		2000	10	56		60	40
7		120	24	32		25K	4	57		100	120
8		120	48	33		25K	8	58		200	240
9		120	96	34		25K	10	59		280	2
10		180	6	35		28K	12	60		360	420
11		120	30	36		29K	20	61		400	420
12		600	60	37		30K	25	62		1200	120
13		210	22	38		32K	30	63		1.6K	1.2K
14		1100	3	39		210K	6	64		2.5K	300
15		1920	6	40		300K	8	65		4.2K	2.1K
16		2200	4	41		40	6	66		5.8K	20
17		2727	8	42		50	8	67		8.82K	111
18		622	17	43		70	7	68		10K	12K
19		962	29	44		60	9	69		9.9K	11K
20		3.26K	12	45		80	6	70		10K	10K
21		3.32K	6	46		90	9	71		20K	40K
22		4.61K	2	47		100	6	72		40K	50K
23		5.27K	8	48		120	8	73		38K	68K
24		3.27K	10	49		150	10	74		48K	38K
25		8.8K	12	50		180	20	75		50K	40K

When all the resistors are the same value wired in parallel, the resistance total equals the value of one of the resistors divided by how many there are. Formula $R_t = R_1 \div N$

Product sum is a method of determining the value of a replacement resistor when there are two that are wired in parallel. Formula $R_t = R_1 \times R_2 \div (R_1 + R_2) = \text{answer}$

Note: K means times 1000. So 8.8KΩ means 8800Ω.

If the entire problem is calculated where each term is times K, then the answer will be times K and no conversion to straight ohms is necessary.