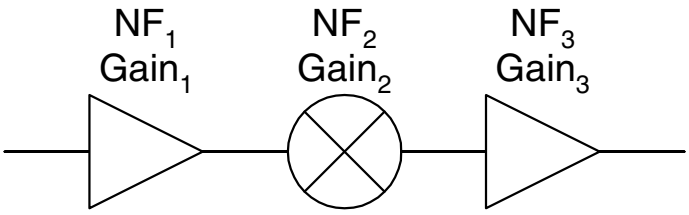

The cascaded noise figure for the above is calculated using the equation

$$NF_{TOT} = NF_1 + \frac{NF_2 - 1}{Gain_1} + \frac{NF_3 - 1}{Gain_2 \cdot Gain_1} + \frac{NF_4 - 1}{Gain_3 \cdot Gain_2 \cdot Gain_1} + \ldots$$

Use the linear terms for Noise Figure and Gain in the above equations, not the decibel form, ie.:

$$Gain_n = 10^{\frac{Gain_n(dB)}{10}}$$

$$NF_n = 10^{\frac{NF_n(dB)}{10}}$$

Some examples:

NF_1 [dB]	$Gain_1$ [dB]	NF_2 [dB]	$Gain_2$ [dB]	NF_3 [dB]	NF_{TOT} [dB]
3	10	5	10	5	3.49
3	10	5	5	5	3.58
3	10	5	10	10	3.62
3	10	5	5	10	3.97
3	5	5	10	5	4.39
3	5	5	5	5	4.62
3	10	10	10	5	4.65
3	5	5	10	10	4.72
3	10	10	5	5	4.72
3	10	10	10	10	4.75
3	10	10	5	10	5.02
3	5	5	5	10	5.54
3	5	10	10	5	6.91
3	5	10	5	5	7.04
3	5	10	10	10	7.10
3	5	10	5	10	7.59
5	10	10	5	5	6.16