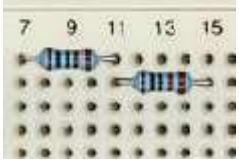
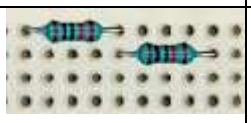
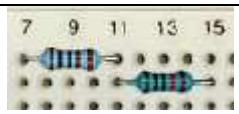
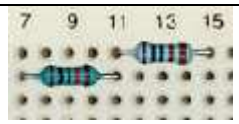
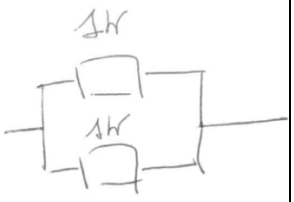
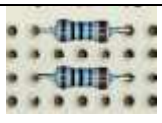
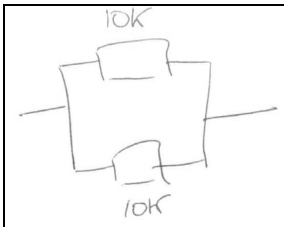
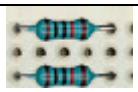
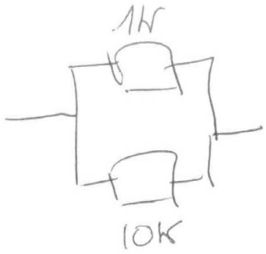
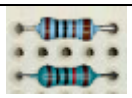
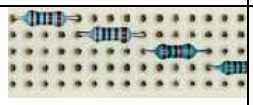
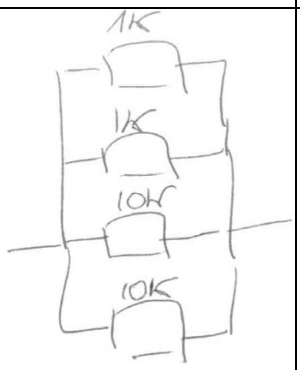
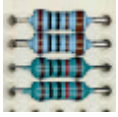
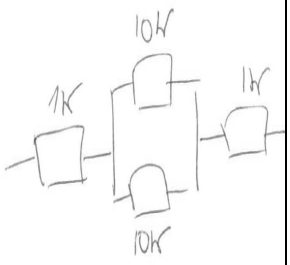
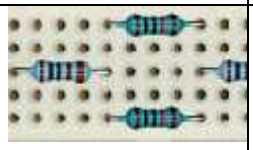
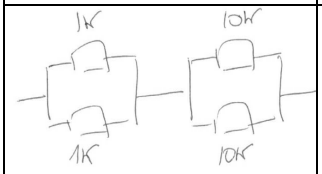
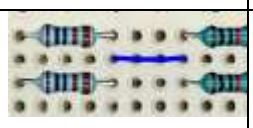
The following table describes a series of experiments to be performed. The first eleven ones have been assembled, measured and compared, obtaining an absolute and percentage error. The remaining exercises need to be done by the students. Is what has been obtained consistent with what was expected? What is the error of a standard resistor? Do errors accumulate or do they cancel each other out? Which experiment is the most accurate: the simplest (few resistors) or the most complex?

This experiment can be performed using Google Docs/Excel and/or Excel spreadsheet.

Circuit	Calculation	Experiment	Measurement	Comparison
	RT = 1K + 1K = 2 KΩ			error = 0.019 KΩ % error = 0.95%
	RT = 10K + 10K = 20KΩ			error = 0.42 KΩ % error = 2.1 %
	RT = 1K + 10K = 11KΩ			error = 0.26 KΩ % error = 2.36 %
	RT = 10K + 1K = 11KΩ			error = 0.10 KΩ % error = 0.91 %
	1/RT =1/1K + 1/1K => RT = 0.5KΩ			error = -5.5 Ω % error = -1.1 %

	1/RT = 1/10K + 1/10K => RT = 5KΩ			error = 0.055 KΩ % error = 1.1 %
	1/RT = 1/1K + 1/10K => RT = 0.909 KΩ			error = 0.023 KΩ % error = 2.54 %
	RT = 1K + 1K + 10K + 10K = 22 KΩ			error = 0.55 KΩ % error = 2.5 %
	1/RT = 1/1K + 1/1K + 1/10K + 1/10K => RT = 0.454 KΩ			error = 0,005 KΩ % error = 1.10 %
	RT = 1K + R1 + 1K = 1/R1 = 1/10 + 1/10 RT = 1K + 5K + 1K = 7 KΩ			error = 0.091 KΩ % error = 1.3 %
	RT = R1 + R2 1/R1 = 1/1K + 1/1K 1/R2 = 1/10K +			error = 0.025 KΩ % error = 0.45

	1/10K RT = 0,5K + 5K = 5.5KΩ			%