

Consider the following data sets.

Series A conc (ppm)	absorbance
0.000	0.111
0.000	0.114
0.000	0.115
0.000	0.111
0.000	0.116
0.000	0.116
0.000	0.118
0.000	0.112
2.114	1.439
4.958	3.327
6.637	4.241
8.013	5.185
10.699	5.267
12.147	5.435

Series B conc (ppm)	absorbance	error in absorbance
0.000	0.091	
0.000	0.095	
0.000	0.093	
0.000	0.091	
0.000	0.091	
0.000	0.092	
0.000	0.092	
0.000	0.090	
1.210	1.668	±0.121
2.002	2.869	±0.059
3.073	3.981	±0.246
4.008	4.887	±1.278
5.144	6.966	±0.197
5.884	7.834	±0.454

For each (You may use up to one sentence to justify any answer):

- Graph the calibration curve to the standard in the Style Guide.
- Remove any points which are outliers and re-graph. (Turn in both, use graph without outliers for following questions.)
- What is the equation of the line? Include error in the slope and y-intercept.
- What is the detection limit?
- What is the sensitivity of the method?
- What is the range of the method?

AND THEN

- Which method is more sensitive?
- Which method has better detection limits?
- Which method is more precise?
- Print another graph (original) and add error bars to your graph (which includes outliers) in Series B. Does that change your opinion of any of the answers given so far? In what way and for what reason?