Key for Comments on Graded AP Physics Lab Experiments

1) your header is missing the date of the experiment and/or lab partner(s) name(s)
2) you are missing one or more important items in your list of materials
3) your procedure needs a better description/diagram of your experimental set-up
4) your procedure needs more detail
5) job well done on your procedure!
6) your data/table(s) needs better organization
7) some or all of your measured data values have missing or incorrect units
8) job well done on presenting your data!
9) you used an incorrect equation/approach for one or more of your calculations
10) for each sample calculation, you need to show the original equation first before plugging in values to arrive at a final answer
11) some or all of your calculated values have missing or incorrect units
12) your final calculated values need to be put into a table
13) your sample calculations need to be better organized
14) job well done on your sample calculations!
15) your graph(s) needs to be larger (at least ½ of a page)
16) your graph(s) is missing a title
17) your graph(s) is missing axis labels and/or correct units
18) your graph(s) has an incorrect best-fit line/curve
19) your graph(s) is missing a slope calculation(s) and/or a correct equation for the best-fit line or curve
20) job well done on your graph(s)!
21) in your conclusion you need to state whether or not the objective(s) of the lab was met
22) in your conclusion you need to restate the final value(s) of your experimental results
23) in your conclusion you need to restate the value of your percent error/percent difference value when justifying whether or not the objective(s) of the lab was met
24) in your conclusion you need more discussion about the physical phenomena/relationships you observed in the experiment
25) in your conclusion you need more discussion about what the graph(s) shows or about the significance of the slope value(s)
26) in your conclusion you need more discussion about your overall results
27) job well done on your discussion of results!
28) in your conclusion you left out one or more major sources of error
29) in your conclusion you need to be more specific about one or more items in your list of possible sources of error
30) in your discussion of sources of error, you should never list "calculation error" as a valid source of error. If you made a mistake in one of your calculations, fix it before you submit the lab
31) in your discussion of sources of error, be sure to indicate how each source of error <u>specifically</u> affected your final result(s). In other words, how would the final result value have been different (larger or smaller) if that particular error had not been present? (if the error could cause your final value to vary in either direction, pick the direction that matches how your result actually varied from the accepted value)
32) in your discussion of sources of error, be sure to list possible ways to reduce each error if the experiment was to be conducted again
33) job well done on your discussion of sources of error!
34) include a suggestion(s) for further investigation or experimentation
35) in your conclusion you left out an answer(s) to one or more "targeted" questions
36) in your conclusion you answered one or more "targeted" questions incorrectly
37) job well done on your conclusion!
38) job well done on your lab organization/neatness!
39) job well done overall!
40) that was one of the worst lab reports I've ever seen in my life