

## SAMPLE PRACTICE TITRATION TEMPLATE INSTRUCTIONS

To use the workbook its probably best to have a play with it first. To do this **either** get some of the result sheets from previous competitions, including the HCl conc. and Acetic acid conc. **or** use the mock results included.

### Instructions:

1. Open the workbook. Make the "Official" worksheet active.
2. In the white cell labeled "Venue" enter the name for your venue.
3. In the white cell labeled HCl Conc., enter the concentration to 4 sig. Fig.
4. In the white cells below Acetic acid conc. A, B and C, enter the official acetic acid concentrations.

You are now ready to enter student data.

5. Make the 'T1' worksheet active. You should now adjust the size of the Excel window so that the whole screen looks just like the student result sheet. You will notice that the team score is blank. It becomes the correct score when enough data has been entered.
6. Enter all relevant information from the student result sheet into the yellowed cells. You will notice that you cannot enter data into non-yellowed cells. When all information has been entered, the calculated team score will appear (If you are using the mock data the score will match if all has been entered correctly).

**Note: You must press the enter key after placing numbers into an Excel cell to make Excel accept the data.**

7. Print the active screen. You'll get a hardcopy of the student results in the form of the original result sheet.
8. Repeat 6 until you have a couple of teams entered (although it is sufficient to enter one team).
9. Make the 'Official' worksheet active. Check to see that the school scores for the information you have entered appears underneath the blue cells. The rank of the team appears next to its score - use these cells to find the winning team for the day.

Basically: **Team score = Student A score + Student B score + Student C score**

Where:

**Student A score** = (Deviation squared + Calculation Penalty+ Titre Penalty) or 10000 whichever is smaller.

**Deviation squared** = (difference between computer verified calculation and official score) squared times 100000000 or 10000 whichever is smaller

**Calculation Penalty** = (difference between computer verified calculation and claimed student result) squared times 100000000 or 200 whichever is smaller.

**Titre Penalty** = Nil if sufficient titres are recorded (two or more in any column of results) otherwise 200.