



Checklist for Titration

Checklist for Titration

1) Rinse the burette with distilled water?

Yes

No

2) Rinse the burette with the solution that it will be used to contain?

Yes

No

3) Ensure that the tap of the burette is closed before filling it with the required solution?

Yes

No

4) Over fill the burette with solution?

Yes

No

5) Rinse the pipette with distilled water?

Yes

No



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Yes

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4) Over fill the burette with solution?

Yes

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5) Rinse the pipette with distilled water?

Yes

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Checklist for Titration

6) Rinse the pipette with the solution that it will be filled with?

Yes No

7) Insert the pipette carefully and gently into the pipette filler?

Yes No

8) Suck excess solution into the pipette filler?

Yes No

9) Remove the pipette from the solution while adjusting the meniscus onto the graduation?

Yes No

10) Touch the tip of the pipette onto the surface of the solution before removing it from the flask?

Yes No



Checklist for Titration

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Yes No

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Yes No

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Yes No

9) Remove the pipette from the solution while adjusting the meniscus onto the graduation?

Yes No

10) Touch the tip of the pipette onto the surface of the solution before removing it from the flask?

Yes No



Checklist for Titration

11) Blow the solution out of the pipette using the pipette filler?

Yes

No

12) Before use, rinse the conical flask with distilled water?

Yes

No

13) Rinse the conical flask with the solution that will be pipetted into it?

Yes

No

14) Ensure that the burette is clamped vertically at all times, especially while taking readings?

Yes

No

15) Climb up on a stool to take burette readings?

Yes

No



Checklist for Titration

11) Blow the solution out of the pipette using the pipette filler?

Yes No

- Let the solution drain out of the pipette under gravity.

12) Before use, rinse the conical flask with distilled water?

Yes No

13) Rinse the conical flask with the solution that will be pipetted into it?

Yes No

- This will increase the amount of chemical in the flask, leading to inaccurate results.

14) Ensure that the burette is clamped vertically at all times, especially while taking readings?

Yes No

15) Climb up on a stool to take burette readings?

Yes No

- This is dangerous! Lower the burette in its clamp so that you can take readings.



Checklist for Titration

16) Remove the funnel from the top of the burette before taking readings and starting the titration?

Yes

No

17) Ensure eye is level with the meniscus when taking readings?

Yes

No

18) Take burette reading going *up* the burette's scale?

Yes

No

19) Ignore air bubbles in the burette and pipette as they will not affect the results?

Yes

No

20) Ensure that a white tile is placed under the conical flask while performing the titration?

Yes

No



Checklist for Titration

16) Remove the funnel from the top of the burette before taking readings and starting the titration?

Yes

No

17) Ensure eye is level with the meniscus when taking readings?

Yes

No

18) Take burette reading going *up* the burette's scale?

Yes

No

- Read the burette moving *down* the scale, in the direction that the solution is moving.

19) Ignore air bubbles in the burette and pipette as they will not affect the results?

Yes

No

- Air bubbles must be removed. They occupy a volume that should be taken-up by the solution.

20) Ensure that a white tile is placed under the conical flask while performing the titration?

Yes

No



Checklist for Titration

21) Add 10 to 12 drops of indicator to the solution in the conical flask?

Yes

No

22) Ensure that the burette is filled to exactly 0.00 cm³ before starting the actual titration?

Yes

No

23) Swirl the conical flask continuously during the titration?

Yes

No

24) Wash the inside of the conical flask with distilled water near to the end-point?

Yes

No

25) Ensure that the addition of just *one drop* of solution from the burette gives the desired colour?

Yes

No



Checklist for Titration

21) Add 10 to 12 drops of indicator to the solution in the conical flask?

Yes

No

- Only add 2 – 4 drops of indicator to the solution in the conical flask.

22) Ensure that the burette is filled to exactly 0.00 cm³ before starting the actual titration?

Yes

No

- Ensure that the meniscus of the solution is on the scale towards the top of the burette.

23) Swirl the conical flask continuously during the titration?

Yes

No

24) Wash the inside of the conical flask with distilled water near to the end-point?

Yes

No

25) Ensure that the addition of just *one drop* of solution from the burette gives the desired colour?

Yes

No



Checklist for Titration

26) Wear safety glasses during the course of the practical?

Yes No

27) Record all burette readings to two decimal places?

Yes No

28) Repeat the titration until two results $\pm 0.10 \text{ cm}^3$ are obtained?

Yes No

29) Record the volume of the solution that is pipetted to one decimal place?

Yes No

30) Tick the best *three* “volumes of solution used” to average for the calculation?

Yes No



Checklist for Titration

26) Wear safety glasses during the course of the practical?

Yes

No

27) Record all burette readings to two decimal places?

Yes

No

28) Repeat the titration until two results $\pm 0.10 \text{ cm}^3$ are obtained?

Yes

No

29) Record the volume of the solution that is pipetted to one decimal place?

Yes

No

30) Tick the best *three* “volumes of solution used” to average for the calculation?

Yes

No

• Only tick the best *two* “volumes of solution used” and average these for the calculation.



Checklist for Titration



| | Titration | | | |
|--|-----------|-----------------|-----------------|-----------------|
| | Rough | 1 st | 2 nd | 3 rd |
| *Final burette reading / cm ³ | | | | |
| *Initial burette reading / cm ³ | | | | |
| Volume of solution used / cm ³ | | | | |
| ✓ Two results ± 0.10 cm ³ | | | | |

*Note that it is burette *reading* and NOT burette *volume*.



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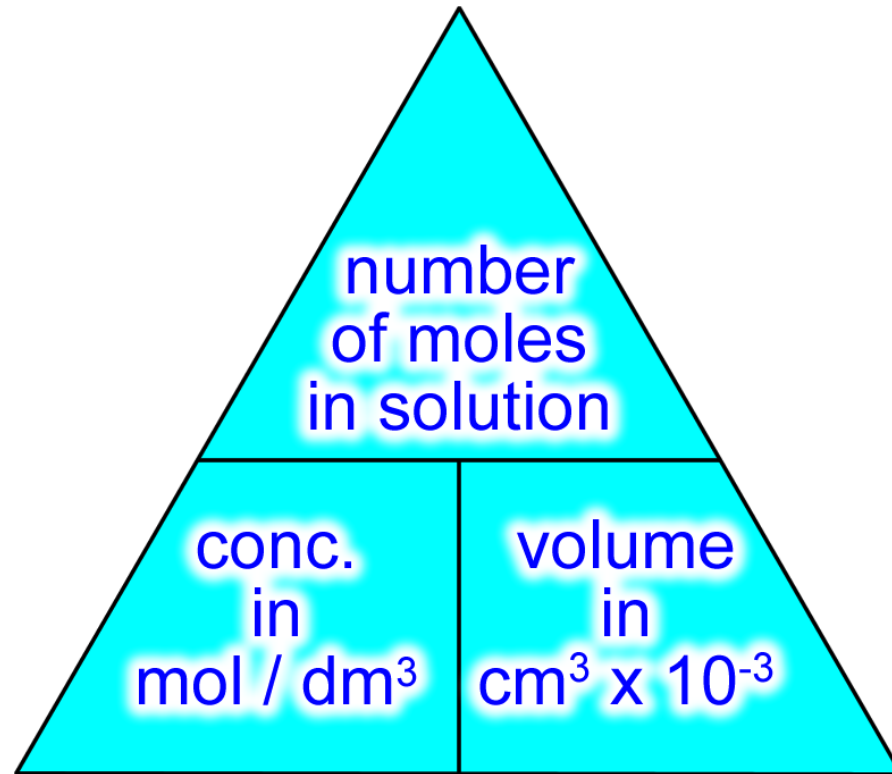


| | Titration | | | |
|---|-----------|-----------------|-----------------|-----------------|
| | Rough | 1 st | 2 nd | 3 rd |
| Final burette reading / cm ³ | 27.50 | 33.80 | 27.20 | 27.00 |
| Initial burette reading / cm ³ | 1.30 | 8.70 | 2.20 | 1.80 |
| Volume of solution used / cm ³ | 26.20 | 25.10 | 25.50 | 25.20 |
| ✓ Two results ± 0.10 cm ³ | | ✓ | | ✓ |

Average of best two results
= $(25.10 + 25.20) \div 2 = \underline{25.15 \text{ cm}^3}$



Checklist for Titration



Checklist for Titration



- Draw the table quickly and clearly.
 - Table can be drawn in *pencil*.
 - Please write in *pen*.
- It is essential to include *units*.
- Burette *reading*, not *volume*.
- *Volume* of solution, not *amount*.
 - Burette readings to *2 d.p.*
- *Include zeros*, e.g. 23.00 not 23.



Checklist for Titration



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Checklist for Titration
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2nd July 2016

