

SANGAM SKM COLLEGE- NADI

CHEMISTRY

YEAR12

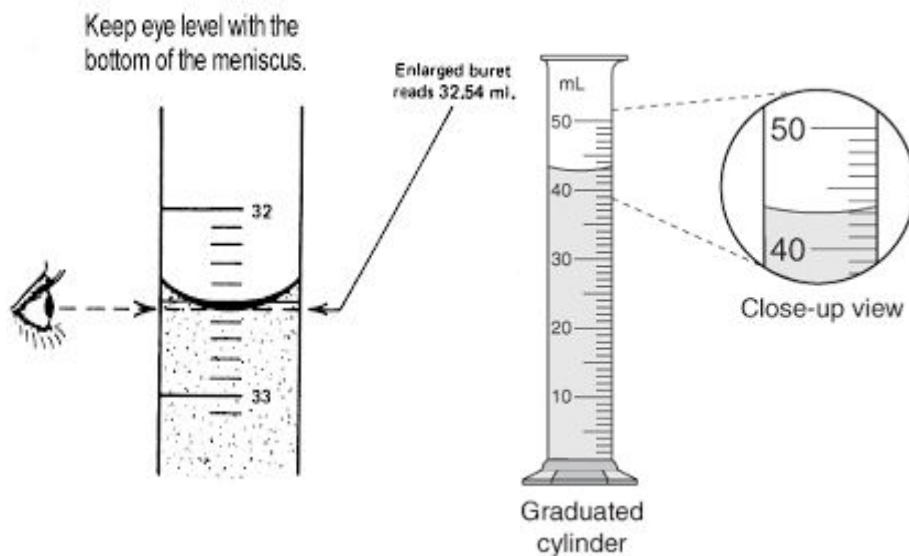
WORKSHEET 1

WEEK :2STRAND: GENERAL CHEMISTRY

- Please wash your hands before you start the worksheet. Remember Hygiene is very important. Stay Safe. Do take care of yourself.
- Spend 30 minutes completing the questions. Summary notes and hints are given for completion of the questions.

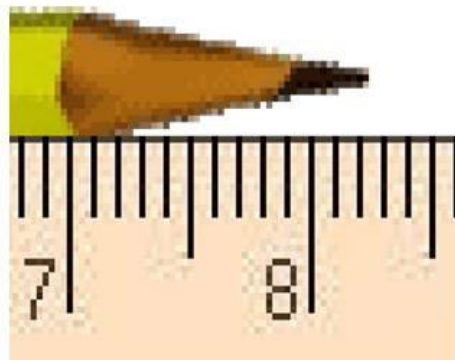
Summary notes

- Whenever you are answering questions from uncertainty you have to look the smallest division and then use the 1/ 10 rule.
- Measuring cylinder has the 1ml smallest division when you use the rule, hence divide by 10 will give you ± 0.1
- Burette has 0.1 smallest division so when you divide by 10, the uncertainty will be ± 0.01

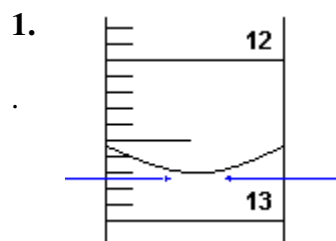
EXAMPLE BURETTE READING MEASURING CYLINDERANSWER: 32.54 ± 0.01 mlANSWER: 43.0 ± 0.1 ml

RULER

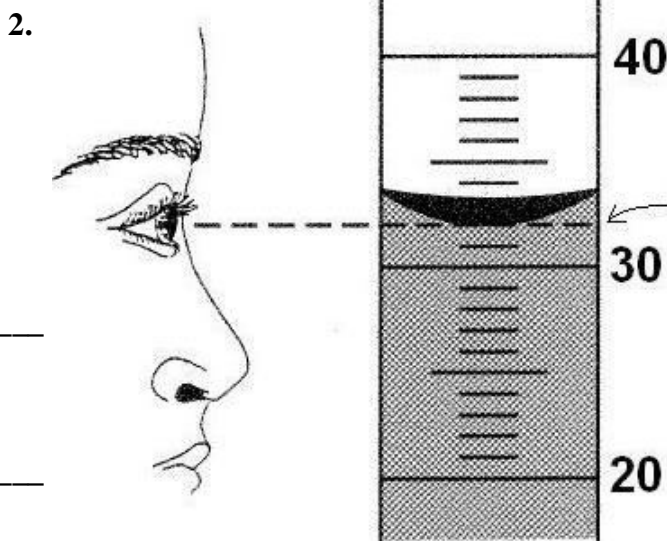
- To account for the uncertainty, the measurement usually is written 8.24 ± 0.01 cm. The " ± 0.01 cm" tells us that the measurement is uncertain to 1/100 of a centimeter.

**QUESTIONS**

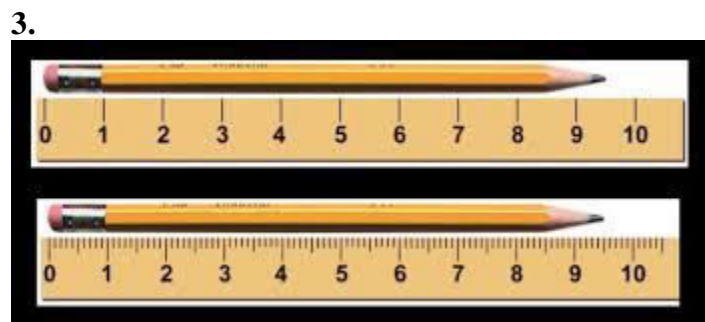
Write the measurement with uncertainty for the following apparatus:



1. Answer: _____



2. Answer: _____

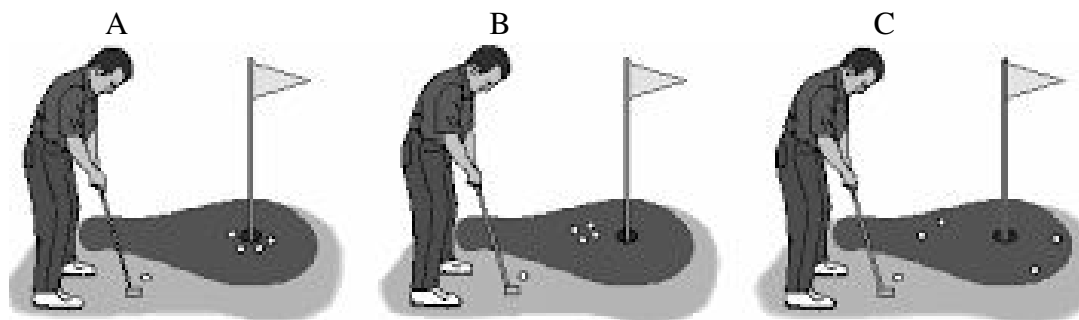


A: _____

B: _____

SANGAM SKM COLLEGE- NADI**CHEMISTRY****YEAR12****WORKSHEET :2****WEEK :3****STRAND: GENERAL CHEMISTRY****DEFINITION WORKSHEET****1. Define the following:****(a) Accuracy:** _____
_____**(b) Precision :** _____
_____**(c) Systematic Error:** _____
_____**(d) Random Error:** _____

2. During the game of golf a person shows the skills of accuracy and precision. The following result was obtained.



Which one of the following

(i) High precision and low accuracy: _____

(ii) High precision and high accuracy: _____

(iii) Low precision and low accuracy: _____

3. State if the following example is a random or systematic error :

(i) Forgetting to tare or zero a balance produces mass measurements

(ii) Not reading the meniscus at eye level for a volume measurement.

(iii) Measuring length with a metal ruler will give a different result at a cold temperature than at a hot temperature, due to thermal expansion of the material.

(iv) An improperly calibrated thermometer may give accurate readings within a certain temperature range, but become inaccurate at higher or lower temperatures.
