Uncertainty

1a. A 20mm leaf is measured using a ruler with 1mm markings. What is the absolute error?
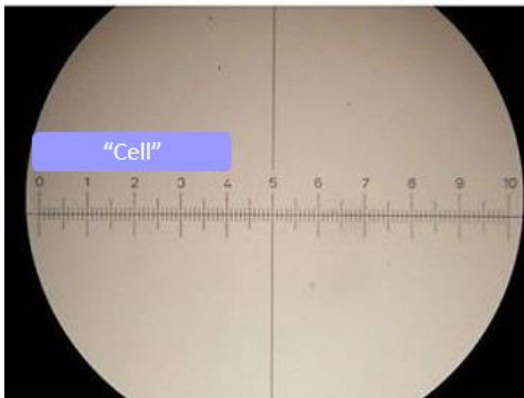

 b. Using your answer from 1a, calculate the percentage uncertainty.

2. The temperature of a water-bath was measured as 67.5 °C using a thermometer with an absolute error of ± 0.5 °C. Calculate the percentage uncertainty.

3. An object is 0.14m in length. This was measured using a 30cm ruler. The absolute error of the ruler is ± 1cm. Calculate the percentage uncertainty.

4. The mass of a sunflower is 300g and has an uncertainty ± 5g. The volume of the sunflower $4cm^3$ is has an uncertainty of ± $0.2cm^3$. Calculate the **overall** percentage uncertainty.

5.

- The diagram shows a stage micrometre where each division is 0.1mm.

- Use this information to calculate the percentage uncertainty of the measured cell.