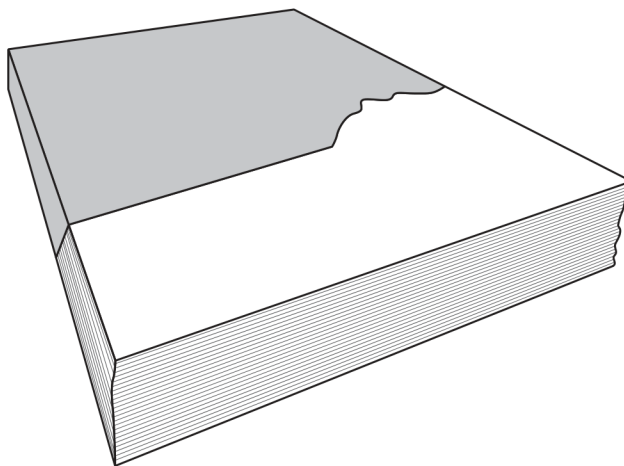


Answer ALL questions.

- 1 A student planned an experiment to determine the density of acetate.

She was given a pack of 50 acetate sheets and had access to standard laboratory apparatus.



The approximate dimensions of a single sheet of acetate are given on the pack.

Length	30 cm
Width	21 cm
Thickness	0.15 mm

The total mass of 50 acetate sheets is approximately 670 g.

- (a) To determine the density of acetate, the student needed to take measurements.

Complete the table below.

(1)

Quantity to be measured	Measuring instrument	Resolution
Mass	Balance	0.1 g
Length and width	Metre rule	
Thickness	Vernier calipers	



(b) Describe a method to determine an accurate value for the density of acetate.

(4)

(c) The student then followed the same method using thicker sheets of acetate.

Explain why using thicker sheets of acetate would reduce the uncertainty in her value for density.

(2)

(Total for Question 1 = 7 marks)