2 A student measures the density of water.

She uses a measuring cylinder and an electronic balance.

(a) State the equation linking density, mass and volume.

(1)

(b) A correct unit for density is

(1)

- ☒ **A** g/cm
- ☒ **B** kg/cm
- ☒ **C** g/cm^2
- ☒ **D** g/cm^3

(c) Complete the table to show what is measured by an electronic balance.

(1)

Measuring instrument	What it measures
measuring cylinder	volume
electronic balance	

(d) Describe how the student should use each instrument to make her measurements as accurate as possible.

(4)

Measuring cylinder

Electronic balance

(e) The student wants to make sure her experiment is a fair test.

(i) State **one** factor that she should keep the same throughout her experiment.

(1)

(ii) Why is it important that she keeps this factor constant?

(1)

(Total for Question 2 = 9 marks)