9 The volume of a piece of brass is 16.3 cm³.

A student measures its mass using an electronic balance.

The mass of the brass is 138 g.

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

(1)

(ii) Calculate the density of brass.

Give the unit.

(3)

density = ... unit ....

(b) The student notices that the electronic balance has a zero error, so it shows mass readings that are all slightly too small.

This means that the density value is

(1)

☒ **A** incorrect and slightly too large

☒ **B** incorrect and slightly too small

☒ **C** correct because the student used three significant figures

☒ **D** correct because the mass of the block is more than zero

(Total for Question 9 = 5 marks)