Oxford Cambridge and RSA

GCSE Physics B (Twenty First Century Science)

J259/04 Depth in physics (Higher Tier)

Question Set 11

1* Kai is doing experiments in the laboratory to determine the density of the two different liquids, **E** and **F**.
He uses a measuring cylinder placed on a balance.

He then pours different volumes of liquid **E** into the measuring cylinder, and records the balance reading, as shown in **Fig. 2.1**. The balance reading is equal to the total mass of the measuring cylinder and the liquid.

He then empties the measuring cylinder, and repeats the same procedure with liquid **F**.

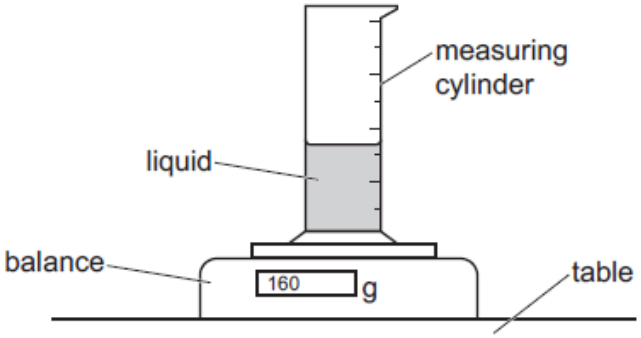

Fig. 2.1

Kai's results are shown in **Fig. 2.2**.

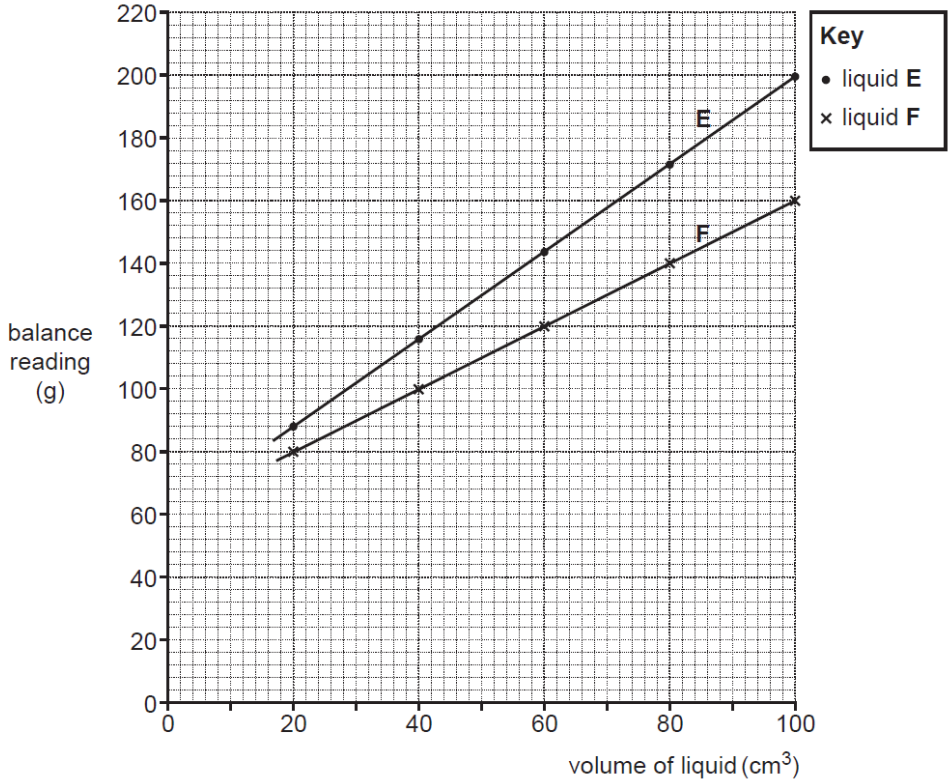

Fig. 2.2

Compare the density of the liquids **E** and **F**.

Your answer should include calculations and a detailed analysis of **Fig. 2.2**.

Use the equation: density = mass ÷ volume

[6]

Total Marks for Question Set 11: 6