

Answer **all eight** questions from this section.

**Question 1****(25 marks)**

- (a) Aoife has €30. She spends  $\frac{1}{2}$  of this money on magazines. Then, she spends €12.50 of what's left at the cinema.

How much money has she left after paying for the magazines and the cinema?

- (b) Aoife has two brothers, Brian and Calvin.  
Each of the three has their own money box.  
The **total** amount of money in the three boxes is €164.  
The amounts in Aoife and Brian's boxes add up to €117.

(i) How much is in Calvin's box?

(ii) Aoife has €5 more than Brian. How much does Brian have in his box?



**Question 7**

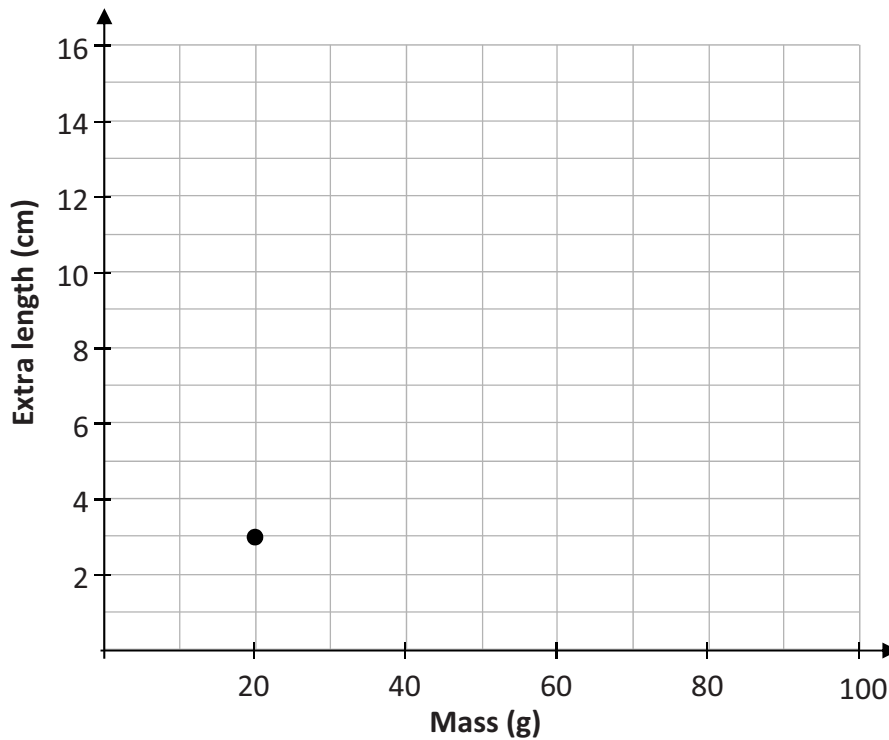
**(25 marks)**

In his Science class, Eoin took readings to show how the extra length in a spring depends on the mass (weight) hanging from it. His results are given in the table below.

Mass (g)	Extra length (cm)
0	0
20	3
40	6
60	9
80	12
100	15

Next Eoin plotted the 6 points from his table and joined them with a straight line.

- (a) Complete the graph on the grid below to show Eoin’s points and his line.  
(One point has been plotted for you.)



- (b) Eoin then hung a mass of 50 g from the spring.  
Use the graph above to estimate the extra length in the spring.


- (c) Eoin hung a single new mass from the spring and he found that the extra length was 10 cm.  
Use the graph above to estimate the mass he hung from the spring.
