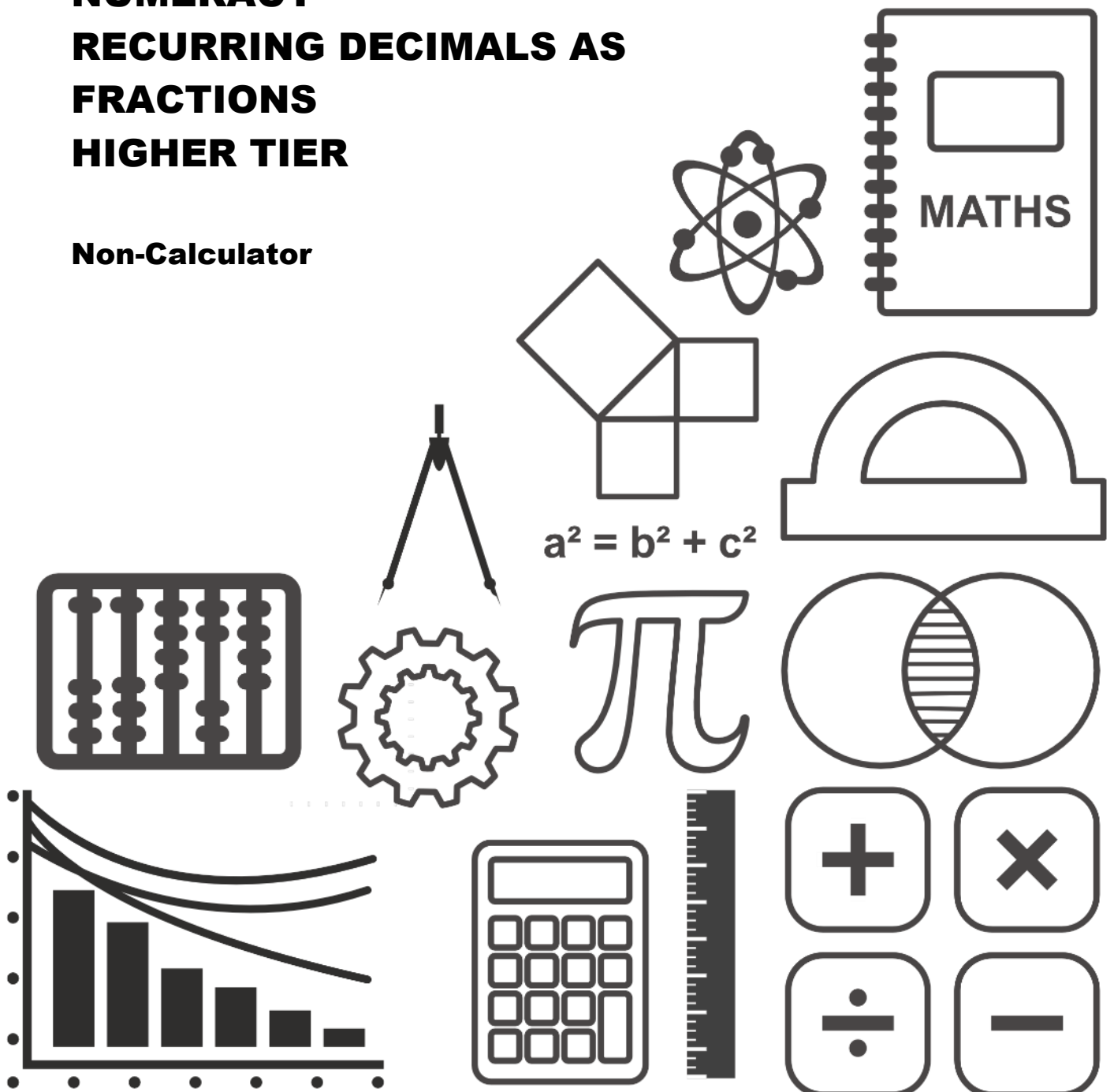


# MATHSDIY

**GCSE TOPIC BOOKLET**  
**NUMERACY**  
**RECURRING DECIMALS AS**  
**FRACTIONS**  
**HIGHER TIER**

**Non-Calculator**



1. Carwyn owns a car and a motorcycle.

After owning the car for a year, Carwyn had the car valued.  
He calculated that the car had lost  $0.13\bar{8}$  of its value at the start of the year.



Express  $0.13\bar{8}$  as a fraction in its lowest terms.

[3]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

2. Write  $0.08\bar{3}$  as a fraction in its simplest form.

[3]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

3. Daniel has made a pizza to share with some friends.

After he has taken his share, he calculates that he has  $0.8\bar{3}$  of the pizza left.  
Daniel shares what he has left equally between 3 of his friends.  
Calculate the fraction of the whole pizza that each of these 3 friends will have.  
Give your answer as a fraction in its lowest terms.

[4]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

4. Eirlys works for an accountancy firm.  
She receives an annual salary, which is paid in equal instalments.

Eirlys has calculated that, so far this financial year, she has been paid  $0.4\overline{16}$  of her annual salary.

(a) Express  $0.4\overline{16}$  as a fraction in its lowest terms. [3]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(b) Use your answer from part (a) to find the number of months' pay Eirlys has received. [1]

.....

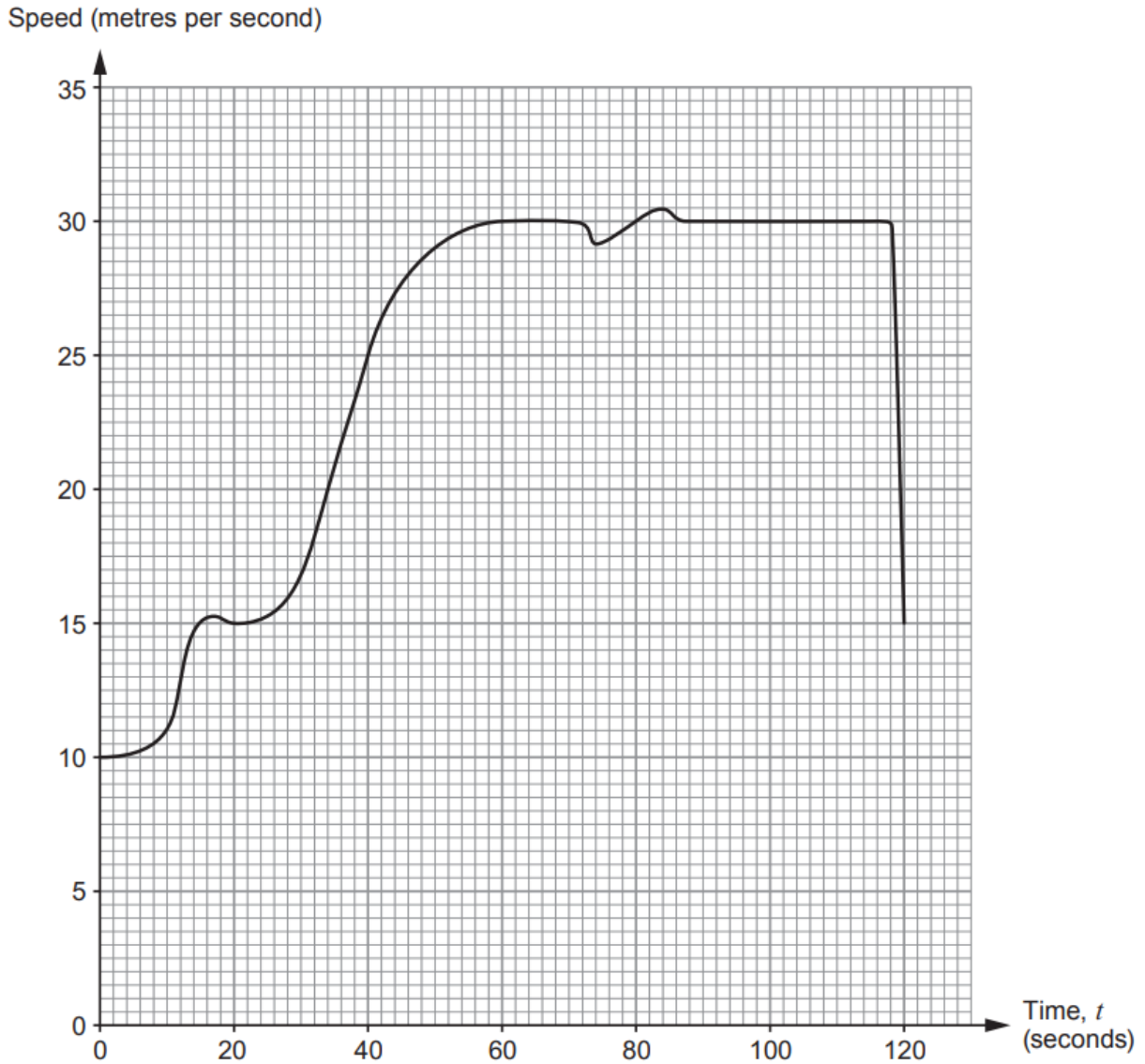
.....

.....

.....

.....

5. The graph below shows a 120-second section of Iestyn's car journey to work this morning.



At another time, Iestyn calculated the acceleration of the car to be  $0.\dot{2}4 \text{ m/s}^2$ .  
Write this recurring decimal as a fraction.

[2]

.....

.....

.....

.....