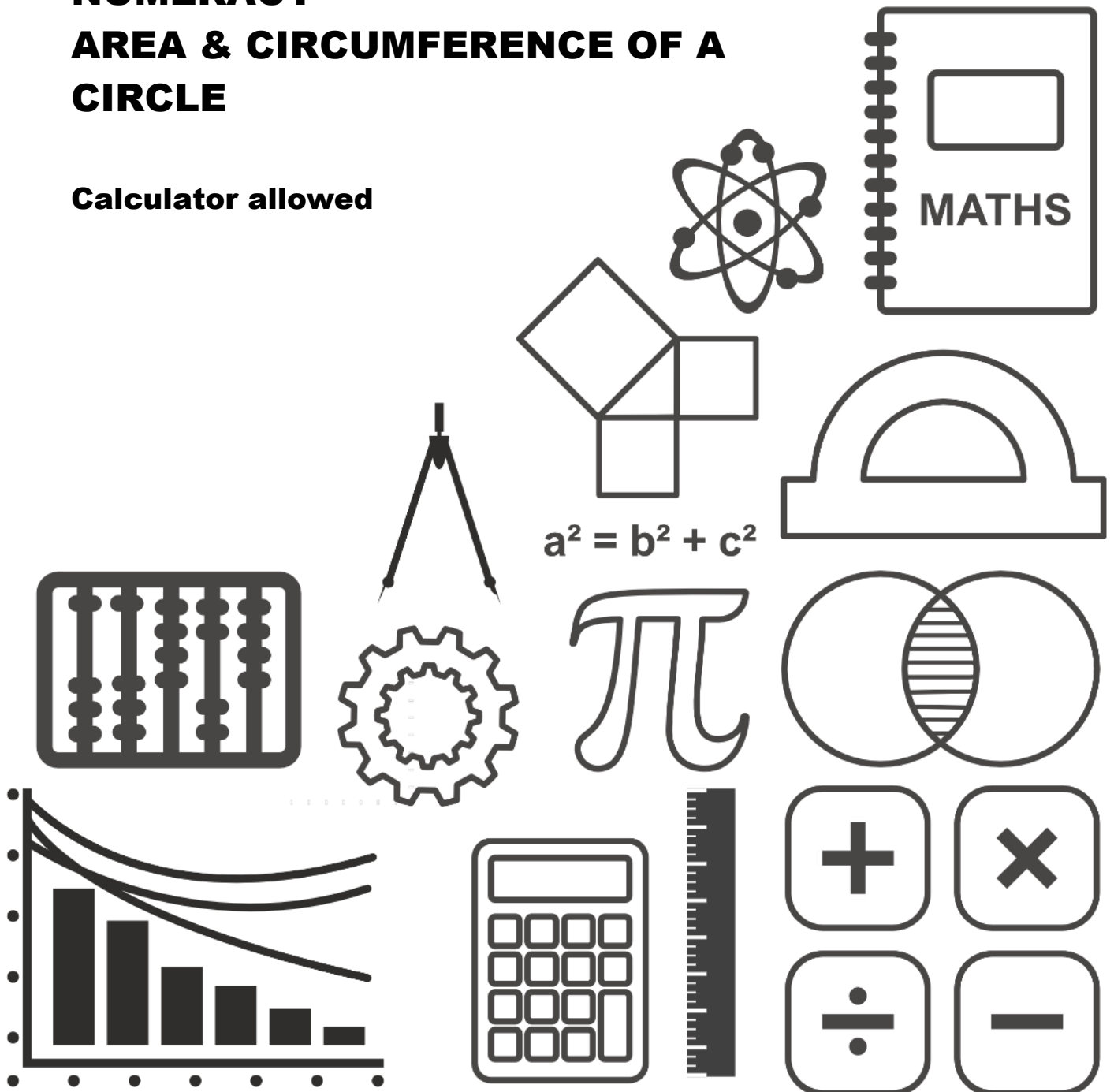


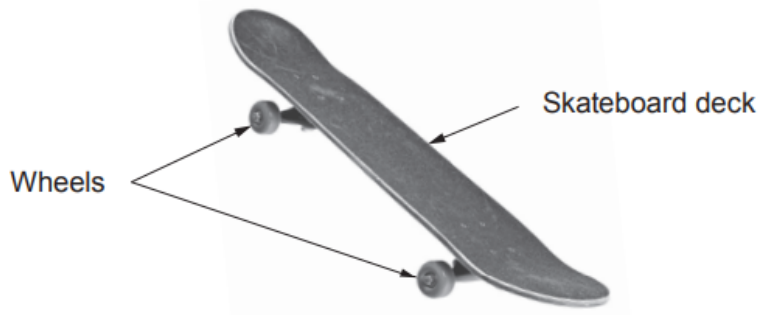
MATHSDIY

GCSE TOPIC BOOKLET NUMERACY AREA & CIRCUMFERENCE OF A CIRCLE

Calculator allowed



1. Finbar's skateboard is shown below.



The diameter of each wheel on Finbar's skateboard is 6.4 cm.
He uses his skateboard to go to visit his friend Sab.
Sab lives 2340 metres from Finbar.

- (i) When Finbar visits Sab, how many times will each wheel on Finbar's skateboard rotate? [4]

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- (ii) What assumption did you make in answering (a)(i)? [1]

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2. A grass racetrack is shown in the diagram below.
 This is the region shaded in the diagram.
 Each end of the grass racetrack is created from semicircles.
 The inner semicircles have a radius of 15 m.
 The outer semicircles have a radius of 20 m.
 Each of the straight sections of the racetrack has a length of 65 metres.

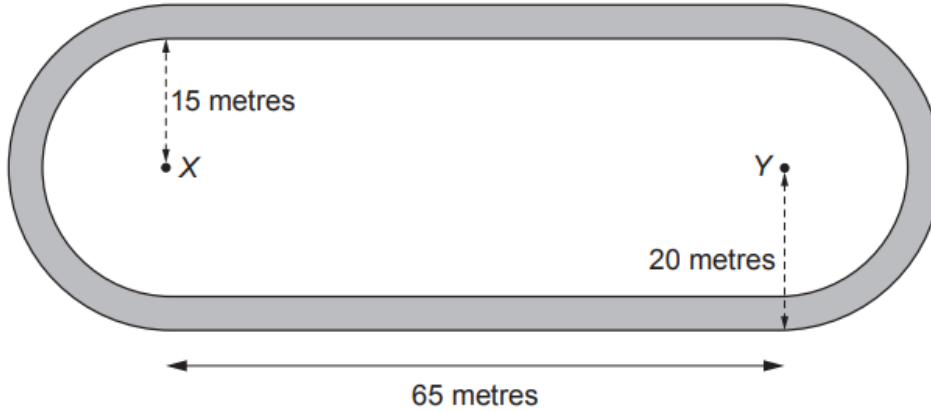


Diagram not drawn to scale

- (a) What is the total area of grass in the two **straight** sections of the racetrack?
 You must show all your working. [2]

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- (b) Calculate the area of the grass racetrack.
 You must show all your working. [4]

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- (c) The grass is to be treated with a fertiliser.
It costs 20p to treat each 3 m² of grass.
How much will it cost to treat the grass racetrack?
Give your answer correct to the nearest pound.
You must show all your working.

[2]

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Cost is £