

## Y10 Maths Weekly Task Grid – Week commencing 22<sup>nd</sup> June

This week's topic focus is **Area under a Graph**

Please complete all 4 tasks. There will also be a **zoom lesson** to support with this work. (Details will be on SMHW)

### Starter:

#### SEQUENCES

Find the nth term of:  
3, 9, 17, 27, 39, .....

#### STANDARD FORM

Without a calculator, work out:  
 $(3 \times 10^5) \times (4 \times 10^{-2})$

#### PROOF/ SHOW THAT/ CONGRUENCE

Prove that the sum of three consecutive integers is always a multiple of three.

#### COORDINATE GEOMETRY

Find the equation of the line joining (2, 7) and (5, 13).

This is enlarged below

### Video on how to do it

*Try to attend the zoom lesson first...*

You can choose which video you want to watch to refresh your memory on how to do Area under a Graph

[Area Under a Graph Video - Corbett Maths](#)

[Velocity - Time Graphs Video - Maths Genie](#)

[Area Under a Graph Video - YouTube \(MrsSinghalMaths\)](#)

[Velocity - Time Graphs Video - YouTube \(Cognito\)](#)

### Practice Questions

You can choose which questions you want to use to practice Area under a Graph. The links to the answers are also provided so you can check them when you are finished.

[Area under a Graph Textbook Exercise - Corbett Maths](#)

[Textbook Exercise ANSWERS - Corbett Maths](#)

[Area Under a Graph Practice Questions - Corbett Maths](#)

[Practice Question ANSWERS - Corbett Maths](#)

[Area under a curve - My Maths Online Homework](#)

### Exam Question (Higher):

Exam question on the following page.

A bit of a helping hand...split the graph into 5 strips.

**SEQUENCES**

Find the nth term of:

3, 9, 17, 27, 39, .....

**STANDARD FORM**

Without a calculator, work out:

$$(3 \times 10^5) \times (4 \times 10^{-2})$$

**PROOF/ SHOW THAT/ CONGRUENCE**

Prove that the sum of three consecutive integers is always a multiple of three.

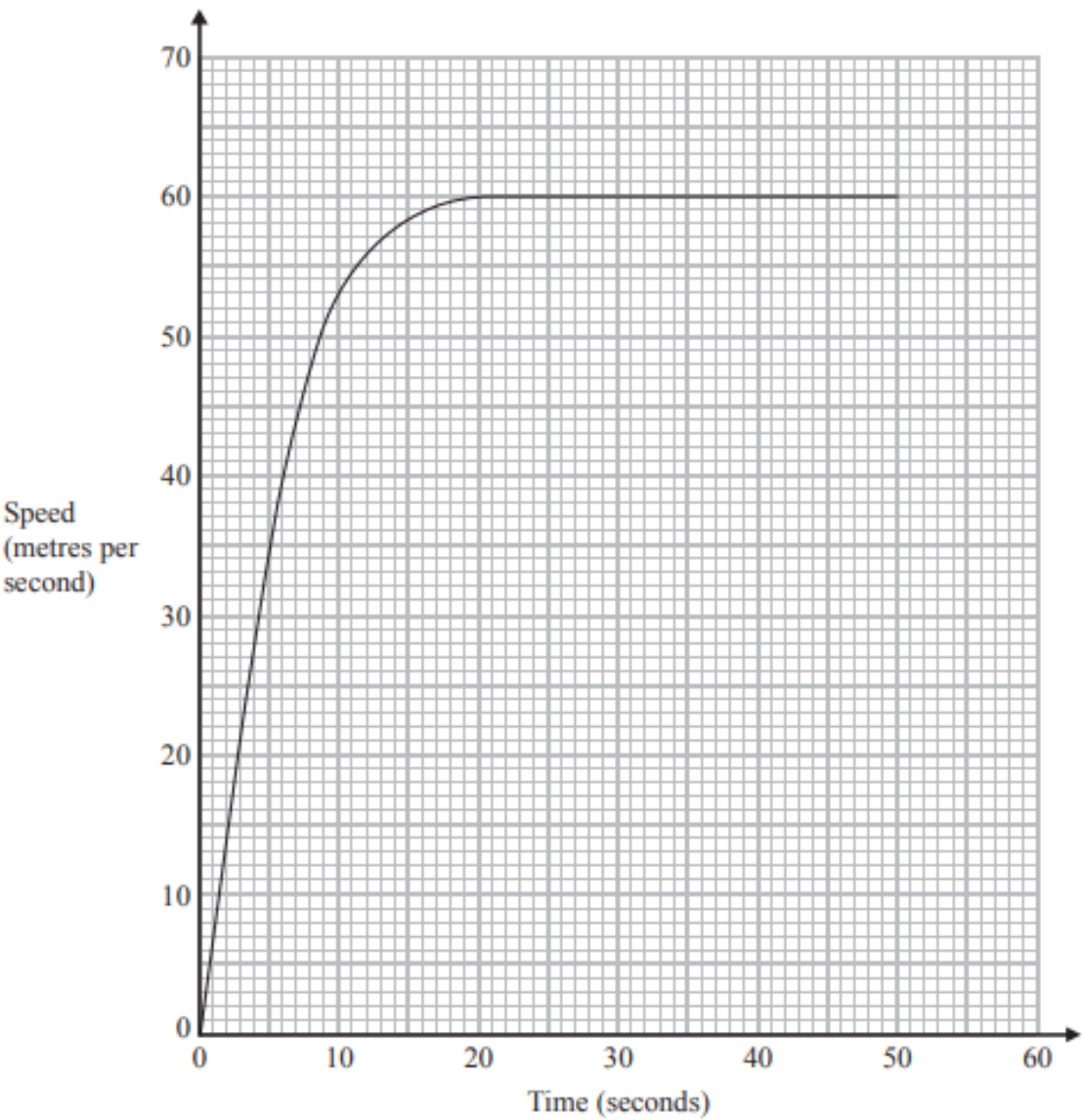
**COORDINATE GEOMETRY**

Find the equation of the line joining (2, 7) and (5, 13).

HIGHER

A car accelerates from 0 metres per second to 60 metres per second in 20 seconds.  
It then travels at a constant speed of 60 metres per second for 30 seconds.

The speed-time graph shows this information.



Work out an estimate for the distance the car travelled in these 50 seconds.

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