



Subject		Mathematics (Higher Tier)		
Title/Topic		Format	Length	Date
Paper 1 – Non Calculator		Written Exam	50 minutes	Wed 15 March
Paper 2 – Calculator Allowed		Written Exam	50 minutes	Wed 22 March
Paper 3 – Calculator Allowed		Written Exam	50 minutes	Fri 24 March

### In this assessment I will need to know how to...

#### Content covered in Year 10 so far...

- Enlarge shapes, identify and find angles in similar shapes and parallel lines and understand how to use congruent triangles.
- Understand area and volume of similar shapes, enlarge with negative scale factors and prove congruency.
- Use Pythagoras' theorem and understand how to use SOHCAHTOA to find missing angles and sides using trigonometry.
- Use trigonometry in 3D shapes, use the sine rule and cosine rule and also find the area of triangles using  $\frac{1}{2}ab\sin C$ .
- Solve one-step and two-step algebraic equations and inequalities and represent solutions on graphs and form and solve equations and inequalities with unknowns on both sides.
- Represent inequalities on graphs and solve quadratic equations and inequalities.
- Solve and form pairs of linear simultaneous equations algebraically and using graphs.
- Solve simultaneous equations algebraically and graphically where one equation is quadratic or where there is a third unknown.
- Understand and represent bearings, make scale drawings and calculate bearings using angle rules including using trigonometry and Pythagoras.
- Solve bearings problems using the cosine and sine rules.
- Calculate with circles finding arc lengths and the area of sectors, understand how to find the volume of cylinders, cones and spheres and find the surface area of those shapes.
- Solve problems using circle some basic circle theorems and solve area and volume problems with similar shapes.
- Understand, represent, draw and calculate with vectors using the correct notation.
- Use vectors in shapes and parallel situations.
- Compare and share amounts into given ratios, link ratios and fractions, solve problems with currency and best buy scenarios and link ratios to graphs and algebra.
- Solve ratio problems with area and volume.

**Your assessments will also draw on assumed knowledge from your studies in Key Stage 3.**



### **What should I do to revise and prepare for this assessment?**

To prepare for this assessment:

1. Work through, complete and self-mark the questions in your Lent Revision Booklet. Use this to diagnose the units you need to focus your revision on.
2. Complete the practice assessment and self-mark (or ask a parent to do it for you).
3. Use look, cover, check using the knowledge organisers on the back of your unit workbooks.
4. Review the results from your unit knowledge check assessments at the back of your workbooks and revisit the small steps for which you have weakness.
5. You should re-watch the lesson video for your identified weaknesses and try the worksheet and check it questions.

### **What useful websites/resources could I use to help me prepare?**

You can access all the Advent term (Unit 1-4) resources here:

<https://www.delisle.org.uk/4757/year-10-maths-advent>

You can access all the Lent term (Unit 5-8) resources here:

<https://www.delisle.org.uk/4766/year-10-maths-lent>

You can use Sparx Maths to revise. You can use the topic list provided by your teacher to complete activities in the independent learning section on sparx.

[www.sparxmaths.uk](http://www.sparxmaths.uk)