

Assessment Notification



<i>Course</i>	Year 9 Mathematics Pathway A/B
<i>Task</i>	Task 2 – Half Yearly Examination
<i>Date and time</i>	As per exam timetable, Week 5, Term 2
<i>Time allowed</i>	60 minutes (3 minutes reading time)
<i>Weighting</i>	25%
<i>Nature of task</i>	Written examination style task, calculators allowed. Each student is permitted to bring a sheet of A4 paper with one side of handwritten notes into the examination.
<i>Topics and outcomes</i>	Algebraic Techniques (MA4-8NA; MA4-10NA and MA5.2-8NA) Right Angled Triangles (MA4-16MG, MA 5.2-13MG, MA 5.3-15MG)
<i>Course text</i>	Signpost Mathematics 9 (5.1-5.3 Chapters 3,7 and 13 or 5.1-5.2 Chapters 3,7 and 12), Pearson

Topics content and text references

Algebraic Techniques (Chapter 3)

Students can be asked to:

- Add and subtract algebraic terms
- Multiply and divide algebraic expressions
- Expand brackets and simplify resulting expressions including negative expansions
- Factorise algebraic expressions using the HCF and including questions where a negative factor is the HCF
- Binomial expansions or 2 bracket expansions
- Add and subtract algebraic fractions
- Multiply and divide algebraic fractions

Equations, Inequalities and Formulas (Chapter 7)

Students can be asked to:

- Solve linear equations
- Solve linear equations with pronumerals on both sides of the equation
- Solve linear equations where expanding is needed to solve the equation
- Solve linear equations involving fractions
- Solve linear equations where fractions are on both sides of the equations
- Write an equation to solve a practical problem and then solve the problem
- Graph an inequality on a number line
- Solve an inequality
- Solve an equality where you need to change the inequality in your solution

(continued overleaf)

Right angled triangles (Chapters 12 or 13)

Students can be asked to:

- Determine the hypotenuse or the shorter side using Pythagoras' theorem
- Using Pythagoras' theorem to solve 3 dimensional problems
- Use the calculator to find the value of $\sin 45^\circ$, $\cos 32^\circ$ etc
- Find the value of $\sin C$ or $\tan C$ etc in a right angled triangle
- Determine the length of a side using Trigonometry and correct your answer to the appropriate number of decimal places
- Find the size of an angle using Trigonometry correct to the nearest degree
- Find the size of an angle using Trigonometry correct to the nearest minute
- Use Trigonometry to determine the length of a side or size of an angle in practical problems **where the diagram is given**
- Use Trigonometry to solve problems involving Angles of Elevation and Depression **where the diagram may or may not be given**
- **Use Trigonometry to solve bearing questions where the diagram is partially given**
- **Use Trigonometry to solve bearings questions where the diagram is not given**

Preparation

- Review class notes and work and use this to prepare the one side of A4 (handwritten) that you can bring into the assessment.
- Study the outcomes listed above by reviewing the theory and working through relevant questions, seeking assistance where required.
- Bring all your equipment to the examination – calculator, pen, pencil, ruler, protractor, eraser