



Summer Learning Journey for Maths

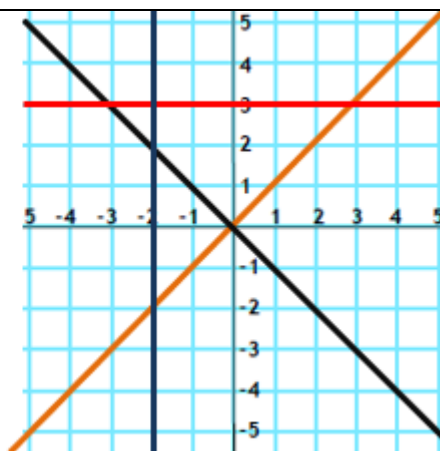
Year 10F Unit 7 Graphs

How does this unit link to prior learning?

- Equation of a line

Prior Knowledge Check

1. Write down the equation of the lines



What will you be learning about?

- Be able to carry out and accurately describe all four transformations: rotation, reflection, translation, and enlargement.
- Carry out multiple transformations and describe the combined transformations.

We will develop our learning each week by focusing on:

1. Coordinates Find the midpoint of a line segment.	RAG	2. Naming Lines on a graphs <ul style="list-style-type: none"> Recognise, name and plot straight-line graphs parallel to the axes 	RAG
3. Linear graphs <ul style="list-style-type: none"> Generate and plot coordinates from a rule. Plot straight-line graphs from tables of values. Draw graphs to represent relationships. 		4. Gradient <ul style="list-style-type: none"> Find the gradient of a line. Identify and interpret the gradient from an equation. Understand that parallel lines have the same gradient. 	
5. $y = mx + c$ <ul style="list-style-type: none"> Understand what m and c represent in $y = mx + c$. Find the equations of straight-line graphs. Sketch graphs given the values of m and c. 		6. Real-life graphs <ul style="list-style-type: none"> Draw and interpret graphs from real data. 	
7. Distance-time graphs <ul style="list-style-type: none"> Use distance–time graphs to solve problems. Draw distance–time graphs. Interpret rate of change graphs. 		8. More real-life graphs <ul style="list-style-type: none"> Draw and interpret a range of graphs. Understand when predictions are reliable. 	
9. Revision Lesson <ul style="list-style-type: none"> Select topics you feel the class need to revise. 		10. Assessment Lesson (non-calculator) <ul style="list-style-type: none"> Do 10-minute top up and go through answers together, students self-assess. 	

<ul style="list-style-type: none"> Classroom based or Mathswatch. 		<ul style="list-style-type: none"> Open book assessment done in silence. 				
11. Feedback Lesson <ul style="list-style-type: none"> Student to highlight their traffic light sheet. Teacher to go through test and students to self-assess in green. Students to complete the NOW section of the WOW-HOW-NOW sheet. 						
Key Vocabulary						
Midpoint	Parallel	Gradient	perpendicular	Interpret	Rate of change	Acceleration

How will this help you in the future?
<p>Algebraic graphs show how one thing changes in relation to another. They help us spot patterns, trends, and connections, which is very useful in real life. Adults use graphs to make predictions, compare information, and make good decisions.</p> <p>For example, graphs are used to track money, plan journeys, understand phone data usage, monitor fitness progress, and see how things like speed, time, or cost change. Being able to read and understand graphs helps people avoid mistakes and understand information clearly.</p> <p>Jobs that use algebraic graphs</p> <p>Many jobs rely on algebraic graphs, including:</p> <ul style="list-style-type: none"> Scientists – to study experiments and see relationships between variables Engineers – to understand forces, motion, and performance Economists and accountants – to track profits, costs, and trends Doctors and health workers – to monitor heart rates, growth, and test results Data analysts – to interpret large amounts of information Meteorologists – to predict weather patterns Sports analysts and coaches – to track performance and improvement <p>Learning algebraic graphs helps develop logical thinking and decision-making skills, which are useful in many careers and everyday life.</p>