

Year 9 · 9.2 Equations of Lines — Learning objectives

What students should be able to do by the end of this unit.

Pre-Requisites

1. I can understand direct proportion and apply it in different contexts.
2. I can collect like terms in algebraic expressions.
3. I can substitute values into algebraic expressions. 2 12x.
4. I can simplify algebraic terms, such as 15x.
5. I can expand single brackets in algebraic expressions.
6. I can factorize expressions involving a single bracket.

Straight Lines

7. I can understand gradient as angles and ratios.
8. I can calculate the distance between two points on a Cartesian plane.
9. I can calculate the midpoint between two points.
10. I can understand the properties of parallel and perpendicular lines.
11. I can determine the equation of a line in slope-intercept form ($y = mx + c$).
12. I can graph lines from given equations.
13. I can find the equation of a line given certain information.
14. I can discuss the rate of change of one variable in relation to another.

Simultaneous Equations

15. I can solve simultaneous equations graphically.
 16. I can solve simultaneous equations numerically using tables.
 17. I can solve simultaneous equations algebraically using the equal value ($y = y$) method.
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