

Railway Engineering Mathematics for Apprentices

Revision Guide: 1

Algebra

I should be able to:

- Manipulate and simplify any fractions.
- Use laws of indices to simplify expressions.
- Re-arrange and solve simple equations.
- Factorise expressions.

Functions

I should be able to:

- Sketch linear, quadratic, exponential and logarithmic functions and plot them precisely using EXCEL.
- Determine the gradient and intercept of a straight line and thus write down its linear equation.
- Solve quadratic equations.
- Determine the quadratic function of a parabola.
- Apply laws of logarithms.
- Transpose and solve equations involving logs and exponential functions.