

Integration

Learning objectives

This is first of several units on integration. Integration is the reverse of *differentiation* so you need to be familiar with basic concepts that underpin methods of differentiation.

After studying this unit you should

- understand the concept of integration and relate it to finding the area under a graph
- be familiar with the general formula for the area under a straight line graph between set limits
- appreciate the linking between differentiation and integration and be able to integrate powers and exponentials
- understand the difference between indefinite integrals and integrals with limits
- be able to apply integration with initial limits to problems in context.