



Integration Checklist

Achievement

I can:

- Integrate power, polynomial, exponential (base e only), trigonometric, and rational functions
- Use reverse chain rule and trigonometric formulae
- Solve rates of change problems
- Find areas under or between graphs of functions by integration
- Find areas using numerical methods (e.g., rectangle or trapezium rule)
- Solve differential equations of the forms $y' = f(x)$ or $y'' = f(x)$ for the above functions or situations where the variables are separable

Merit

I can

- Apply a logical sequence of integration steps
- Connect different concepts or representations in solving integration problems
- Demonstrate an understanding of integration concepts and apply them appropriately
- Form and use a model involving integration to solve problems
- Relate findings from integration problems to a context

Excellence

I can:

- Devise a strategy to investigate or solve integration-based problems
- Identify relevant integration concepts in context
- Develop a chain of logical reasoning or proof involving integration
- Form generalizations about integration techniques and their applications
- Communicate mathematical insight about integration methods and their use in solving problems