Apply calculus methods in solving problems

Achieved	Merit	Excellence
Apply calculus methods in solving problems.	Apply calculus methods, using relational thinking, in solving problems.	Apply calculus methods, using extended abstract thinking, in solving problems.
Relational Thinking - Involves selecting and carrying out a logical sequence of steps, connecting different concepts or representations, demonstrating understanding of concepts, and relating findings to a context.		
Extended Abstract Thinking - Involves devising a strategy, identifying relevant concepts, developing logical reasoning, forming generalizations, and communicating mathematical insight.		

Calculus Methods

The methods included in this standard are related to:

- ☐ Derivatives and antiderivatives of polynomials given in expanded form
- ☐ Gradient functions
- ☐ Gradient at a point
- ☐ Equation of a tangent
- ☐ Turning points where f(x) = 0 and their nature
- ☐ Finding a function from a derived function
- ☐ Rate of change problems (such as kinematics)

Problems

Situations set in real-life or mathematical contexts that provide opportunities to apply knowledge or understanding of calculus concepts and methods

Key Vocabulary

Students are expected to understand and use terms related to graphical methods, such as:

- ☐ Derivative
- ☐ Anti-derivative
- ☐ Gradient
- ☐ Tangent
- ☐ Turning point
- ☐ Rate of change
- ☐ Kinematics
- ☐ Slope
- ☐ Integral