



IB DP Maths Studies

ASSESSMENT TASK NOTIFICATION

Subject: Year 11 Mathematics Studies Teacher: Ms Lau, Mr Millard

Task: Calculus (Topic 7)

Date of task: 18 October 2012

The Assessment Test will cover the following topics:

- Rates of change.
- Tangent to a curve.
- The derivative of functions
- **Gradients of curves** for given values of x .
- Values of x where $f'(x)$ is given.
- Equation of the **tangent** at a given point.
- Equation of the line perpendicular to the tangent at a given point (normal).
- Increasing and decreasing functions.
- Graphical interpretation of ' $f'(x) > 0$, $f'(x) = 0$ and $f'(x) < 0$ '
- Values of x where the gradient of a curve is zero.
- Solution of $f'(x) = 0$.
- Stationary points.
- Local maximum and minimum points.
- Optimization problems.

Calculators are allowed.

Student may bring a simple (non-electronic) translating dictionary.

Note:

The assessment would contain both short responds and long questions.

Students are required to show their workings to gain full credit of each question.