

**YEAR 11 EXTENSION 1
ASSESSMENT TASK
TERM 2, WEEK 1, 2009**

Date: Friday, 5th May
Time Allowed: 1 period

Marks: 100
Weighting: 10%

Outcomes Addressed

- Understands and graphs simple functions
- Applies multi-step deductive reasoning to geometrical problems involving the circle

Real Functions

- Determine whether a set of ordered pairs is a function or merely a relation both visually and algebraically
- Use function notation to find function values and solve related problems
- Determine whether a function is even or odd
- State the domain and range from either the graph or the equation
- Graph simple functions including straight lines, parabolas, hyperbolas, circles, semi-circles, exponentials, absolute values and piecemeal graphs
- Find the centre and radius of a circle from its equation
- Graph regions of the number plane which represent inequalities
- Locus and related problems

Circle Geometry

- Be able to name the different parts of a circle
- Recognise and apply:
 - chord (and arc) properties
 - angle at the centre result
 - angles in the same segment
 - angle in a semi-circle
 - cyclic quadrilateral properties
 - tangent properties
 - square on tangent result
 - product of intercepting chords
 - angle in the alternate segment

Instructions

- Attempt all questions
- Show all necessary working
- Write in blue pen, black pen or dark pencil
- Approved calculators may be used

NOTE:

- Students who do not achieve the outcome (less than 34%) in this assessment task will receive an 'Official Warning' – non completion of the HSC course.
- Students will be required to re-sit the task within 7 days.
- Students will be given 2 further opportunities to achieve the required outcome.
- Failure to achieve the outcome may result in the student receiving an 'N' determination.