Assessment Task for Stage 6: Preliminary
Subject: Mathematics

THIS ASSESSMENT TASK CAN BE FOUND ON THE COLLEGE WEBSITE UNDER THE LEARNING AND TEACHING TAB

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Submission Instructions
- This is an in-class task which will be completed during your lesson in period 1 on the above date.
- Penalty for non attendance
  - On the date of the assessment will immediately receive a 50% mark penalty of the achieved mark pending Illness/Misadventure certification.
  - On the day following the assessment will receive a zero mark pending Illness/Misadventure certification.

Outcomes being Assessed
- P1 Demonstrates confidence in using mathematics to obtain realistic solutions to problems.
- P2 Provides reasoning to support conclusions which are appropriate to the context.
- P3 Performs routine arithmetic and algebraic manipulation involving surds and simple rational expressions.
- P4 Chooses and applies appropriate arithmetic and algebraic techniques.
TASK DETAILS

1. Description of the Task

You are asked to ..........

- Complete a class test of 55 minutes in length covering the topic **Basic Arithmetic and Algebra**.
- You will be expected to show steps of working. Marks will be deducted for careless or badly arranged work.
- Attempt all questions on the test paper.
- Bring your own equipment – Board of Studies approved calculator, pens, ruler and stapler. There is to be no borrowing of equipment during the test.
- Paper will be provided.
- **Subject Specific Terminology**: absolute value, algebraic, binomial, cubes, expand, factorise, linear, quadratic, rationalise, scientific notation, significant figures, simplify, simultaneous, solve, squares, surd, trinomial.

2. Classroom Learning:

Students will be prepared to effectively complete this task through:

- **Learning to (skills)**
  - Use the calculator to simplify a calculation
  - Simplify algebraic expressions
  - Expand algebraic expressions, including binomial expansions, perfect squares and difference of two squares
  - Factorise algebraic expressions using common factors, grouping in pairs, quadratic trinomials, difference of two squares and the sum and difference of two cubes
  - Simplify surds using the four operations and by rationalising the denominator
  - Solve linear, simultaneous and absolute value equations
  - Solve quadratic equations by factorising and using the quadratic formula
  - Solve inequalities involving absolute values

- **Learning about (knowledge)**
  - The use of a calculator
  - Using algebra to simplify, expand and factorise algebraic expressions
  - Surds and absolute values
  - The solution of linear, quadratic, simultaneous and absolute value equations
  - The solution of inequalities involving absolute values

- Terms used in the assessing of this task: calculate, evaluate, expand, factorise, rationalise, simplify, solve

3. Marking Criteria

- The marking criteria will be on the examination paper and on the solutions when the task is handed back.