



The **CENTRE** for **EDUCATION** in **MATHEMATICS** and **COMPUTING**

EUCLID CONTEST

Tuesday, April 12, 2011

INFORMATION FOR STUDENTS

Contest Format:

The paper is 2 ½ hours in length and is to be written during the morning of Tuesday, April 12, 2011. It consists of 10 questions, each worth 10, for a total of 100. Questions are divided into answers only and full solutions parts. There are no multiple choice questions. Competitors are reminded that marks for the full solution questions are assigned for form and style of presentation, as well as for answers. A poorly presented solution will not receive full marks.

Topics:

Most of the problems will be based on the mathematics curriculum up to and including the final year of secondary school. The paper may include questions based on the topics listed below:

- Euclidean and analytic geometry
- trigonometry, including functions, graphs, identities, sine and cosine laws
- exponential and logarithmic functions
- functional notation
- systems of equations
- polynomials, including relationships involving the roots of quadratic and cubic equations, the remainder theorem
- sequences and series
- simple counting problems
- properties of numbers

Visit **www.cemc.uwaterloo.ca** to use the Euclid eWorkshops, to find copies of past contests, and to find other materials useful for preparation.

It is recommended that this list be posted in the classroom and that a copy be made available to every student competitor