

Group 2 Mathematics for candidates aged 11 years on 1st September 2008.

There will be one paper, lasting 1 hour. Candidates are expected to bring with them a pencil and a ruler marked in centimetres and millimetres. Calculators are not allowed.

The exam will be based on the topics below. A past paper is available at:
<http://www.clsb.org/Admissions/admissionsindex.html>

Number and algebra

Multiplying or dividing by any 2-digit number. Adding, subtracting, multiplying and dividing decimals with up to 2 decimal places. Multiplying or dividing whole numbers, or decimals, by 10, 100 or 1000. Using negative numbers. Reducing fractions to their simplest form by cancelling common factors. Using ratio or direct proportion in simple problems. Calculating fractional or percentage parts of quantities. Appreciating that multiplication and division are inverse operations, and using that to check calculations. Understanding index notation such as 5^2 and 6^3 . Understanding and using words or phrases such as 'prime', 'square root', 'cube root', 'factor', 'multiple', including expressing a number as a product of primes. Understanding and using brackets appropriately, including knowing the order in which arithmetic operations should be carried out (e.g. $1 + 2 \times 3 = 7$).

Using a letter to stand for a number. Expressing simple formulae, equations and functions symbolically. Using co-ordinates in all four quadrants.

Shape, space and measures

Time: 12 and 24 hour clock. Interpreting scale drawings, including maps. Nets of cubes, pyramids, and prisms. Using language associated with angles (acute, obtuse, reflex). Knowing that the sum of the angles in a triangle is 180° , and that the sum of the angles at a point is 360° . Find the perimeter of 2-D shapes. Calculating the areas of rectangles and right-angled triangles; and the volumes of cuboids. Reflection and rotation symmetry; know the terms 'mirror line' and 'order of rotational symmetry'.

Handling data

Finding the mean and range of a set of data. Interpreting bar and line charts. Estimating probability from experimental data, or theoretical considerations based on equally likely outcomes.