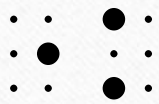
NEMETH MATHEMATICAL BRAILLE CODE
Part 1

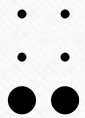
From “Mathematics made easy for children with visual impairments”

Nemeth Mathematical braille codes are used in many parts of the world to teach mathematics to blind children. The codes are close to visual configurations of particular symbols used with sighted children and therefore, applying a certain logic will help learn the codes without much difficulty.

For example, the symbol for less than (<) is written in braille using two cells resembling the visual configuration as

 (dot 5 in the first cell and dots 1 and 3 in the second cell)

Though the six dots in a braille cell cannot present the visual configuration of every mathematical code, the sign, which is closest to the visual configuration is presented through the Nemeth code. For example, the minus sign (-) is shown by a single cell configuration as

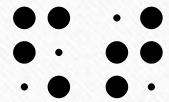
 (Dots 3 and 6)

Therefore, one can look for visual configuration of the codes as clues to learn Nemeth Braille codes. The visually impaired person, who does not know the visual configuration of the signs may find it difficult to use this logic, but wherever possible, this logic may be used.

The purpose of using this logic is to avoid memorization of the codes. In addition to the visual configuration, some structural configurations are also used in learning mathematical codes. For example, all shapes used in Geometry can be easily understood by the learner, whether visually impaired or sighted, by using a simple logic. For indicating shape, the code used is

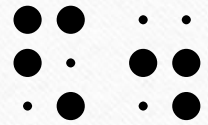
(dots 1,2,4 and 6)

The geometrical shape is shown by using a letter, which in most cases is the first letter of the name of that figure. For example, using letter “t” after the shape indicator



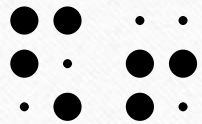
indicates triangle, the letter “r” after the shape indicator indicates rectangle and so on. However, some other logic is also used with the shape indicator. For example, one tempted to say that shape indicator with letter “s” is "square" but it is not true. In shapes we classify “regular” and “irregular” shapes. The indication of the number of sides of the shape with shape indicator means the regular figure, and the letter or letters which can treated as acronyms for the shapes may be used for “irregular” figure.

For example, a four sided figure where all sides are equal may be a “square” or a "rhombus". In indicating hexagon, it may be a regular hexagon where all six sides are equal or an irregular hexagon where the sides are not equal. For a square, the mathematical symbol used is



See that the number of sides of a square (4) when indicated in numeral form means the shape square.

Similarly, for a regular hexagon, the symbol used is



whereas for an irregular hexagon, the code used is

Here the acronym for hexagon is treated as “hx”. By applying this logic, one can learn most of the mathematical codes.

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