variation

Canonical name	Variation
Date of creation	2013-03-22 14:53:49
Last modified on	2013-03-22 14:53:49
Owner	drini (3)
Last modified by	drini (3)
Numerical id	7
Author	drini (3)
Entry type	Topic
Classification	msc 08C99
Synonym	Proportion
Related topic	HomogeneousEquation
Related topic	GraphOfEquationXyConstant
Related topic	ProportionalityOfNumbers
Defines	Relationships between two or more variables.

Variation and proportion are defined to be the relationship between two or more variables with regard to a constant of proportionality.

The traditional notation for direct proportionality is $x \propto y$ or, if using regular equality notation, $x = ky$.

Here, k denotes the constant of proportionality.

Similarly, the traditional notation for inverse proportionality is $x \propto 1/y$ or, with regular equality, $x = k/y$.

For direct proportionality, to find the value of an unknown x or y, you may use the formula: $y_1/x_1 = y_2/x_2$

Similarly, for inverse proportion it would be: $x_1/y_1 = y_2/x_2$