



**MathsNET**

A joined up approach to  
teaching and learning  
mathematics

# Introduction to Gibbs Phase Rule

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- What is the conjugate variable to volume? Is volume an intensive thermodynamic variable or extensive thermodynamic variable? What about its conjugate variable is it intensive?
- Is temperature an extensive or intensive variable? What thermodynamic variable is conjugate to temperature?
- Is the number of atoms in a phase an intensive or extensive thermodynamic variable. What thermodynamic variable is conjugate to number of atoms
- How do the intensive and extensive thermodynamic variables behave in a system when it is at equilibrium.