

Differential Equations as Mathematical Models

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- Mathematical Model – The mathematical description of a system or a phenomenon
- Level of Resolution – The scope of variables defined in a mathematical model
- State of the System – A solution of a model gives this. In other words, the values of the dependent variable (or variables). For example, t gives us time, past, present, and future.
- Thomas Malthus – One of the earliest people to attempt a model based on population growth.
- Examples of things modeled by maths: Population growth, Radioactive decay, Lifetime of a drug in a system, Capital interest, etc.