Answer on Question #77139 - Chemistry - Inorganic Chemistry

Question:

What is meant by a well-behaved function ? Illustrate with the help of a suitable diagram.

Solution:

When developing a new method, or in the proof of a theorem, one can usually rely on previous work. For example, you can use the central limit theorem, the Fourier transform, or the intermediate value theorem. Each of them can have its own requirements, such as convergence, continuity, differentiability or some limitations.

One uses the term "well-managed function" instead of saying, "let's assume that all requirements to all the tools I use here are met".

In science (unlike mathematics), people are often a little vague as to what assumptions they make about how "they behave well". The reason for this is that ultimately these theories must be tested, so why worry about what kind of properties you take when your worries are functions that arise in real life that are likely to satisfy all your assumptions .