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HIV and the Immune System - A Mathematical Model

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Abstract:

We discuss a mathematical model of increasing the HI-viruses in the human body. This model gives an answer to the question why the space of time between HI-infection and outbreak of AIDS differs to a great extent. It also gives insight into the phenomenon that our immune system is generally not able to root out HI-viruses completely. This example is interesting from different view-points:

- It is well suited for lessons combining subjects like mathematics and biology.
- It demonstrates that even extensive simulations can be well done by the TI92/TI89 or DERIVE.
- It emphasizes the usefullness of recursively defined sequences which prove to be a multi-functional tool.