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Modeling, in general logicrefers to the establishment of a description of a system in mathematical terms, which describes the behaviour of the original organism. Such a design ofmathematical representation is called a mathematical model, of the physical system.

In numerous realistic disciplines such as medicine, engineering and ? nance, amongst others, modeling and investigating lifespan data is essential. Researchers in mathematicsare in the habit of dividing the universe into two parts: mathematics, andeverything else, that is, the rest of the world, sometimes called “ the realworld”. As soon as you practice mathematics to know a situationin the actual world, andthen feasibly practice it totake an action or event of forecast the future, togetherthe actual world condition and the resultant mathematics methods are taken seriously. Thecircumstances and the queries related with them can be any extent from enormousto tiny. The enormous ones may lead to lifetime careers for those who studythem deeply and special curricula or whole university departments may be set upto prepare people for such careers. Bioorganism, hormones study, medicalimaging, and cryptography are some such examples. At the another end of the extent, there are slight circumstances and equivalent interrogations, although they maybe of great importance to the individuals involved: planning a trip, schedulingthe time-table, man requirtment methods, or bidding in an auction.

Whether the problem is enormous ortiny, the procedure of “ interface” between the mathematics and the physical worldis the same: the actual circumstances frequently has numerous sides that youcan’t take all into account, so you choose which characteristics are mostsignificant and retain

those. At this instant, you have an perfect descriptionof the actual condition, which you can then interpret into mathematicalrelations. Now you have a mathematical model of the idealized question. Thenyou relate your mathematical characters and facts to the model, and gainexciting understandings, examples, designs, formulas, and algorithms. Youdecode all this back into the actual situation, and you assurance to have amodel for the idealized question. But you have to check back: the results are practical, the answers are reasonable, the consequences are acceptable? If so, then wehave the mathematical model for the actual world problem, If not, take anotherlook at the choices you made at the beginning, and try again.

This entireprocess is called mathematical modeling.