

Math 370

Section 1.1: Modeling Change with Difference Equations

Two variables y and x are proportional (to each other) if one is always a constant multiple of the other; that is, if

$$y = kx$$

for some nonzero constant k .

A sequence is a function whose domain is the set of all nonnegative integers and whose range is a subset of the real numbers. A dynamical system is a relationship among terms in a sequence. A numerical solution is a table of values satisfying the dynamical system.