



Solving Equations

1 Why

If I am holding 3 stones in both hands, and I have two of them in my left hand, how many might I have in my right hand? If I am holding fewer than 5 pebbles, how many might I have in my right hand?

2 Overview

An **equation** is an assertion that two objects are the same. An indeterminate equation is one in which some value is unknown. For example, I am asserting above that I have three pebbles and that I have two in my left hand. We know that the total number of pebbles I am holding is three. A solution of the equation is any possible number of pebbles I could be holding in my right hand such that the sum is three.

Discuss solutions in a set. Discuss existence of solution. Discuss uniqueness of solution.

2.1 Notation

We can denote the pebble equation as find n so that

$$2 + n = 3$$