

40 and -5 to get 35. Or, if you prefer, think of it as adding 40 and subtracting 5. In any case, the answer is 35 and you did not need to throw away your first estimate and start over.

IF YOUR CHILD IS HAVING DIFFICULTY WITH FRACTIONS

A few simple, basic principles will help your child understand and use fractions. First, a fraction is essentially a *ratio* involving two numbers. Second, fractions are numbers (we call them *rational* numbers) which have all the fundamental number properties or laws of whole numbers and integers as well as a few new ones of their own.

The numerals for fractions can be written in several ways. One-fifth can be written as $1/5$, $\frac{1}{5}$ or (1, 5). The "1" in each example is called the first member (or numerator) and the "5" is the second member (or denominator) of the pair of numbers used to name this fraction. Whole numbers are a special kind of fraction whose second member is one. Thus, the whole number 5 is also the fraction $5/1$. No fraction can have "0" as a first member.

For every fraction there is another fraction, called its inverse or reciprocal, which can be formed by exchanging the first and second members with each other. Thus, the reciprocal of $1/5$ or (1, 5) is $5/1$ or (5, 1). (The inverse or reciprocal of a fraction is therefore that number by which the fraction can be multiplied to produce 1. Thus: $1/5 \times 5/1 = 1$.)

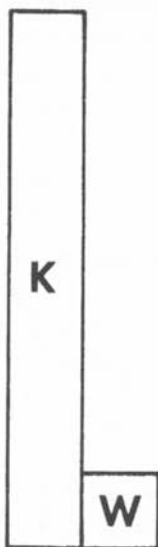
(The activities on Activity Card H-1 make clear the simple relationship between a unit fraction like $1/7$ and a fraction like $7/1$.)

The fraction $1/7$ looks like this with the Cuisenaire rods:



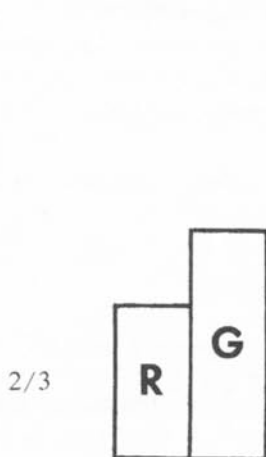
$1/7$

The inverse or reciprocal of $1/7$ is $7/1$ which looks like this:

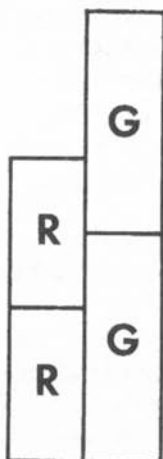


$7/1$

Just as with whole numbers, there are many different equivalent names for fractions. (See Card H-2). For example: $2/3 = 20/30 = 40/60 = 400/600 = 12/18 = 24/36 = \text{etc.}$ The Cuisenaire rods make clear the various names for the fraction $2/3$:



$2/3$



$2/3$
($4/6$)