Brainbox learn easy

Chapter 02

LINEAR EQUATIONS IN ONE VARIABLE

PROCEDURE PROBLEMS BASED ON LINEAR EQUATIONS:

(1) Read the problem carefully and find out what is given and what is unknown.

(2) Represent the unknown quantity by 'x'.

(3) According to the conditions given in the problem, write the relation between the known and the unknown.

(4) Solve the equation to obtain the value of unknown 'x'.

Example-1:

A Mother is 7 times as old as his son two years ago, the mother was 13 times as old as her son. What are their present ages?

Solution: Let the son's age be 'x' years.

	Son	Mother
Present age	x	$7x$
Age 2 years ago	$x-2$	$7x-2$

According to the data,

$7x-2=13(x-2)$

$\Rightarrow 7x-2=13x-26$

$\Rightarrow 13x-7x=26-2$

$\Rightarrow 6x=24$

$\Rightarrow x=\frac{24}{6}=4$

$\therefore$ Son's present age = 4 years

Mother's present age = $7\times 4=28$ years.