$A = \{ 10, 20,$ Labrador dog, [illegible] $\}$

Useful sets in math are made up of well defined objects such as numbers.

$S = \{10, 20, 30, 40, 50\}$

↑ Name of Set — Elements of set.

e ∈

Element Notation:

Element 10 is a member of set S.

$10 \in S$

10 belongs to S.

$20 \in S$

20 belongs to S.

$15 \notin S$.

15 does not belong to S.

Set can be completely defined by specifying elements in them

$S1 = \{10, 20, 30, 40, 50\}$

$S2 = \{20, 30, 10, 50, 40\}$

List method of denoting the sets is not useful when there are large number of elements or infinitely many elements are present in set.

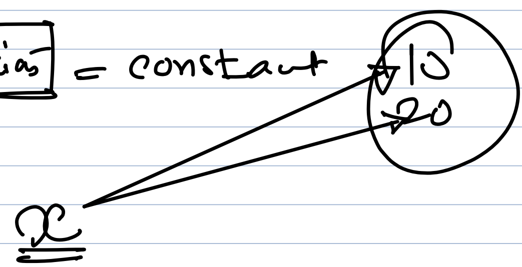
Predicate Method / (Set builder notation)

Predicate : A condition imposed on variable.

Variable : An entity which is capable of changing esp. w.r.t. time.

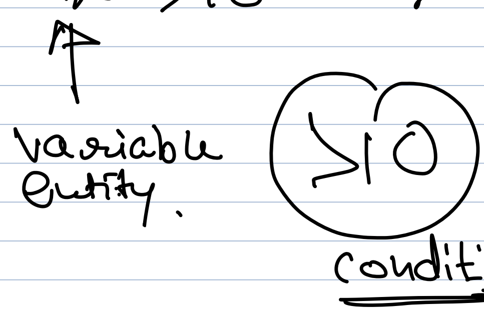
चल × स्थिरांक = constant

अचल



Potential to change.

$x > 10$ ⟶ Predicate.



How to deal with expressions involving variables?

[Mathematics
→ Educational Hopes
→ Downfall]

Pathandar + study habits: opportunities

(95%) (1-30) 6, 7, 8.
99%
95 → m – (40-60) 60

(x) Eqn Prog comb
f Cal
sut

$$\left[\lim_{x \to \pi/2} (\sin x + \cos x)\right]$$

$$= \left[\lim_{x \to \pi/2} \sin x + \lim_{x \to \pi/2} \cos x\right]$$

$$= \sin\frac{\pi}{2} + \cos\frac{\pi}{2}$$

$$= 0 + 1$$

$$= 1$$

ტოლია?

$$\lim_{x \to a} (f(x) + g(x)) =$$

$$\lim_{x \to a} f(x) + \lim_{x \to a} g(x)$$