



ALL BRANCHES



General Aptitude



Introduction to  
Quantitative Aptitude

Lec-01



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# TOPICS TO BE COVERED

- 1.
- 2.
- 3.
- 4.

Introduction to Aptitude

Basics of Numbers

Logical Approach to Calculations

Brainstorming on Numbers



## Why APITUDE?

VISA

?

- ① Job X Business
- ② PG X
- ③ =



What is APTITUDE?

Numbers

Quantitative

Reasoning



Natural Ability





Aptitude literally means a natural talent. It is something that comes with us by our birth. But it is to be explored and developed within by us and that can be achieved by understanding and practicing the concepts of aptitude.

The candidates with good aptitude skills are considered better than others because they are fast at their mind and good at problem solving skills. Thus aptitude has become the most important soft skill these days.

## Numbers

- Quants
- Arithmetic
- Numerical Ability



## Where do we use Numbers in Life?

- Counting
- Comparision
- Measurement
- Combination (Mixing)
- Distribution (Sharing) ~~~~~ etc

Numbers



# NUMBERS

X

2) 8 Y

$$\frac{8}{2} = \underline{4}$$

$$\frac{0}{9} = \underline{0} \quad 9) \overline{0} \overline{0} \overline{0}$$

$\frac{0}{0}$

② whole

whole

① Natural Number

3) 15 Z

$$\frac{15}{3} = \underline{\underline{5}}$$

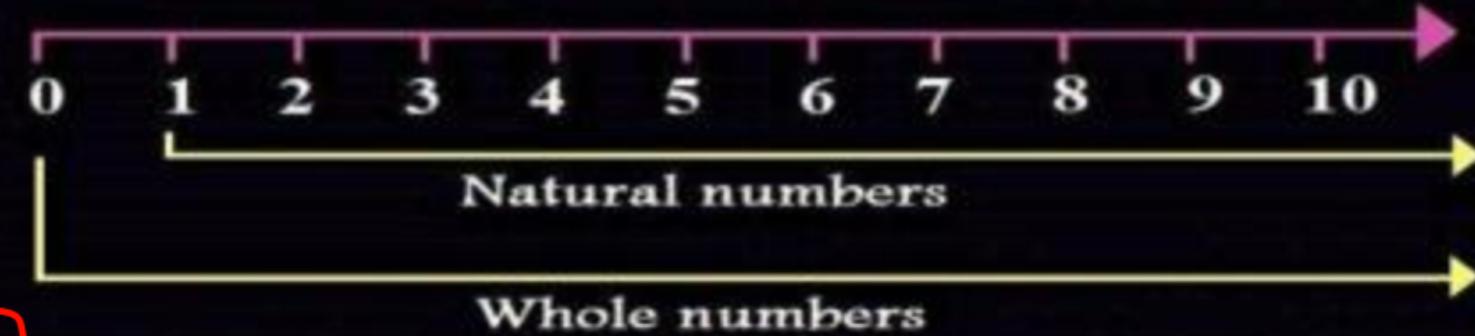
0) 6 T

$$\frac{6}{0} = \infty$$



# BASICS

- Natural Number {N}
- Whole Number {W}
- Even Number
- ODD Number
- Integers {I}
- Prime Numbers ~~x~~
- Composite Numbers {Non-Prime} ~~x~~
- Rational & Irrational



1 - ~~0~~ X

2 → 1, 2

factors

6 → 1, 2, 3, 6

Multiples

6 → 6, 12, 18, 24, 30, 36  
48, 54, 60, 66, 72, 78, 84, 90, 96  
102, 108 → 80



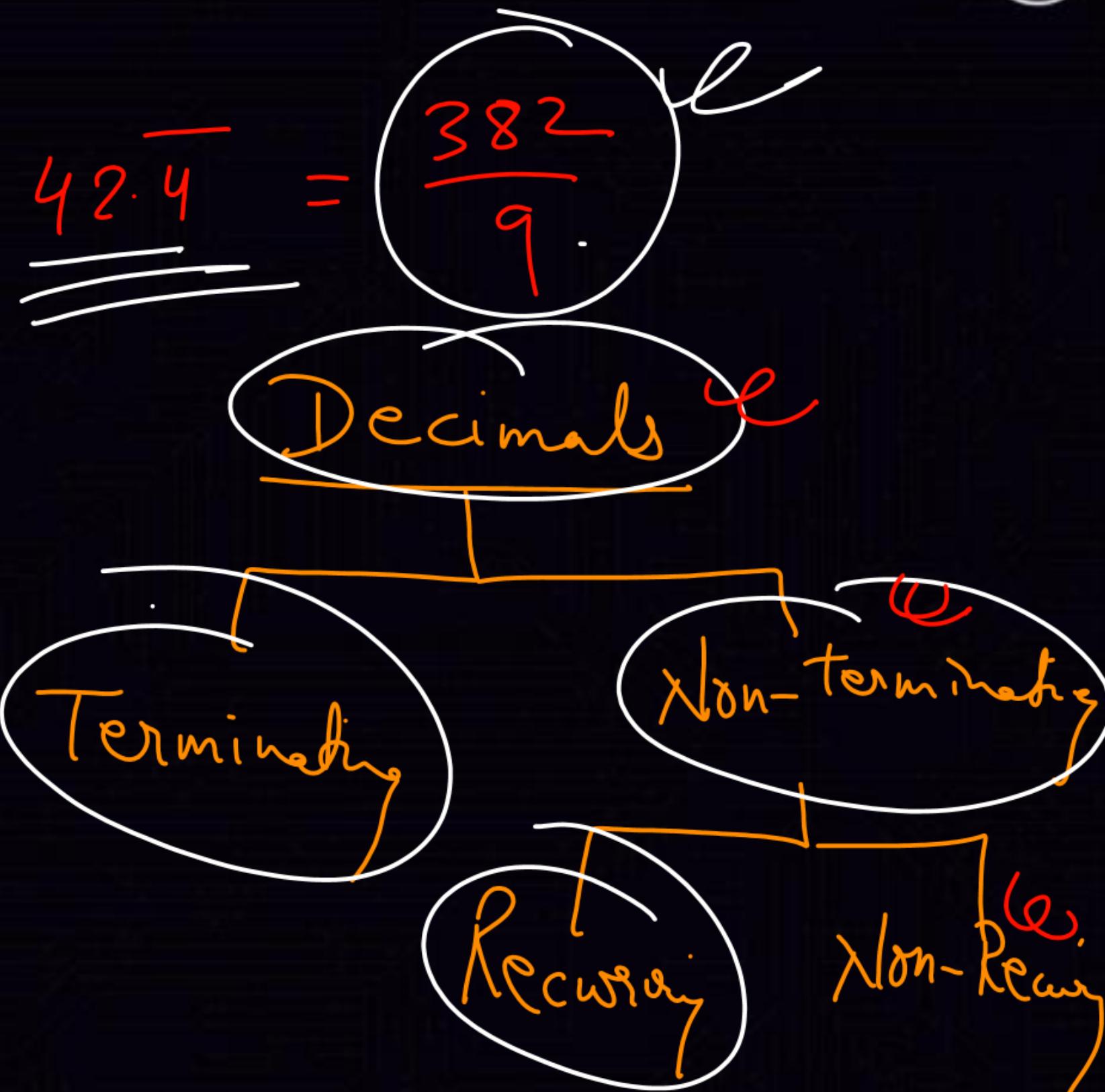
# RATIONAL NUMBERS

$$3 = \frac{3}{1}$$

$$-8 = \frac{-8}{1}$$

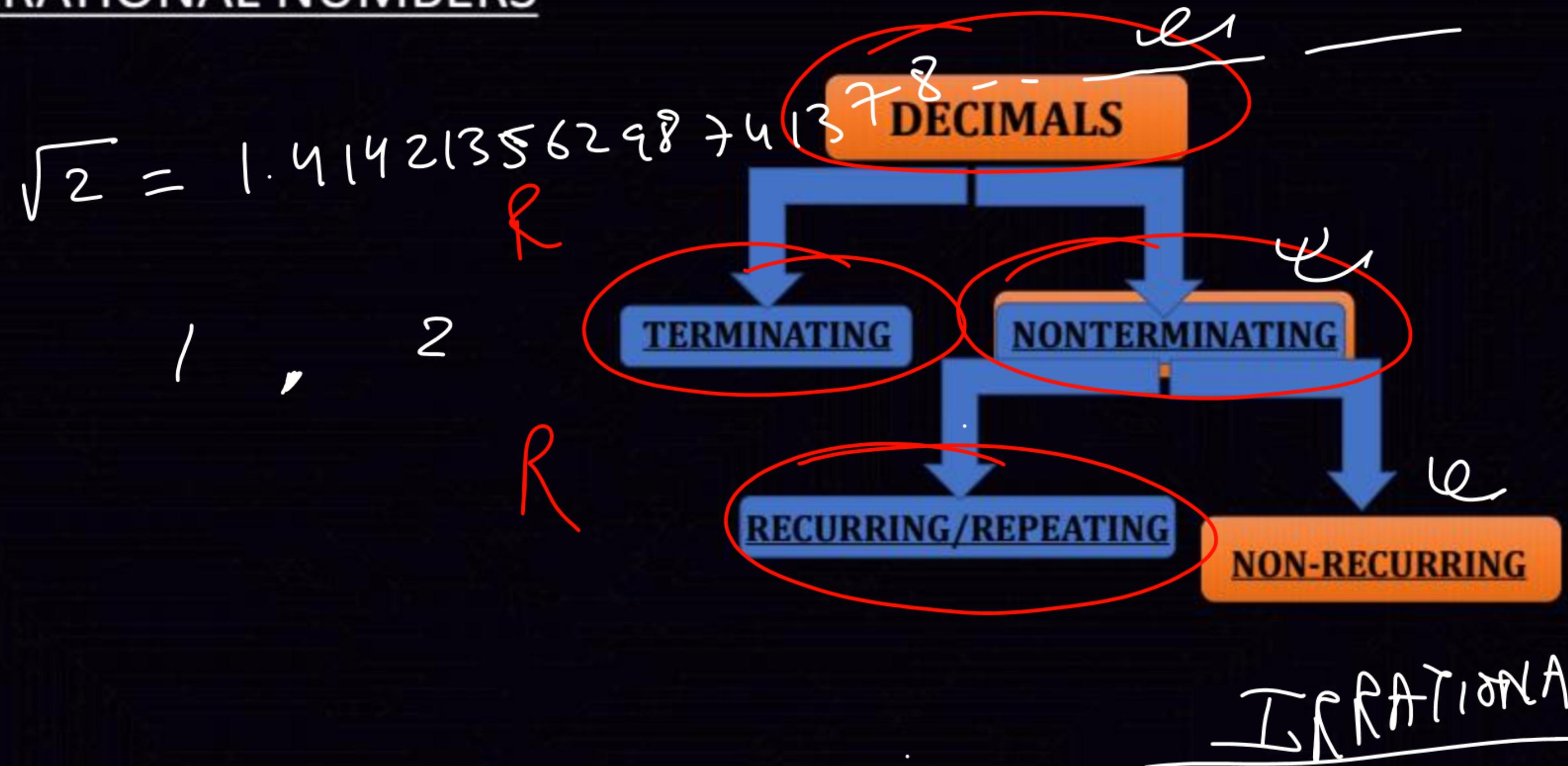
$$2.8 = \frac{28}{10}$$

$$0 = \frac{0}{1}$$





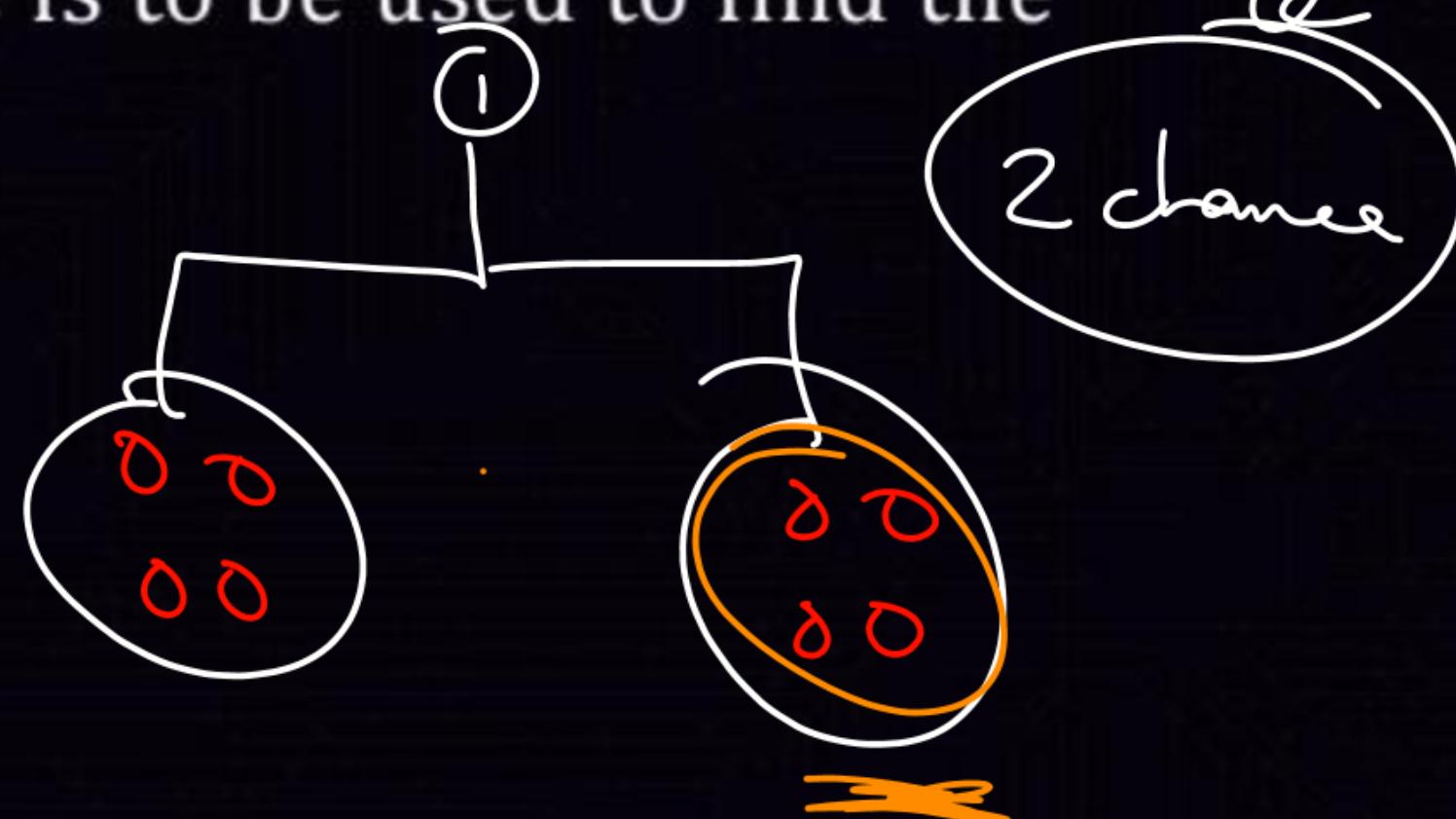
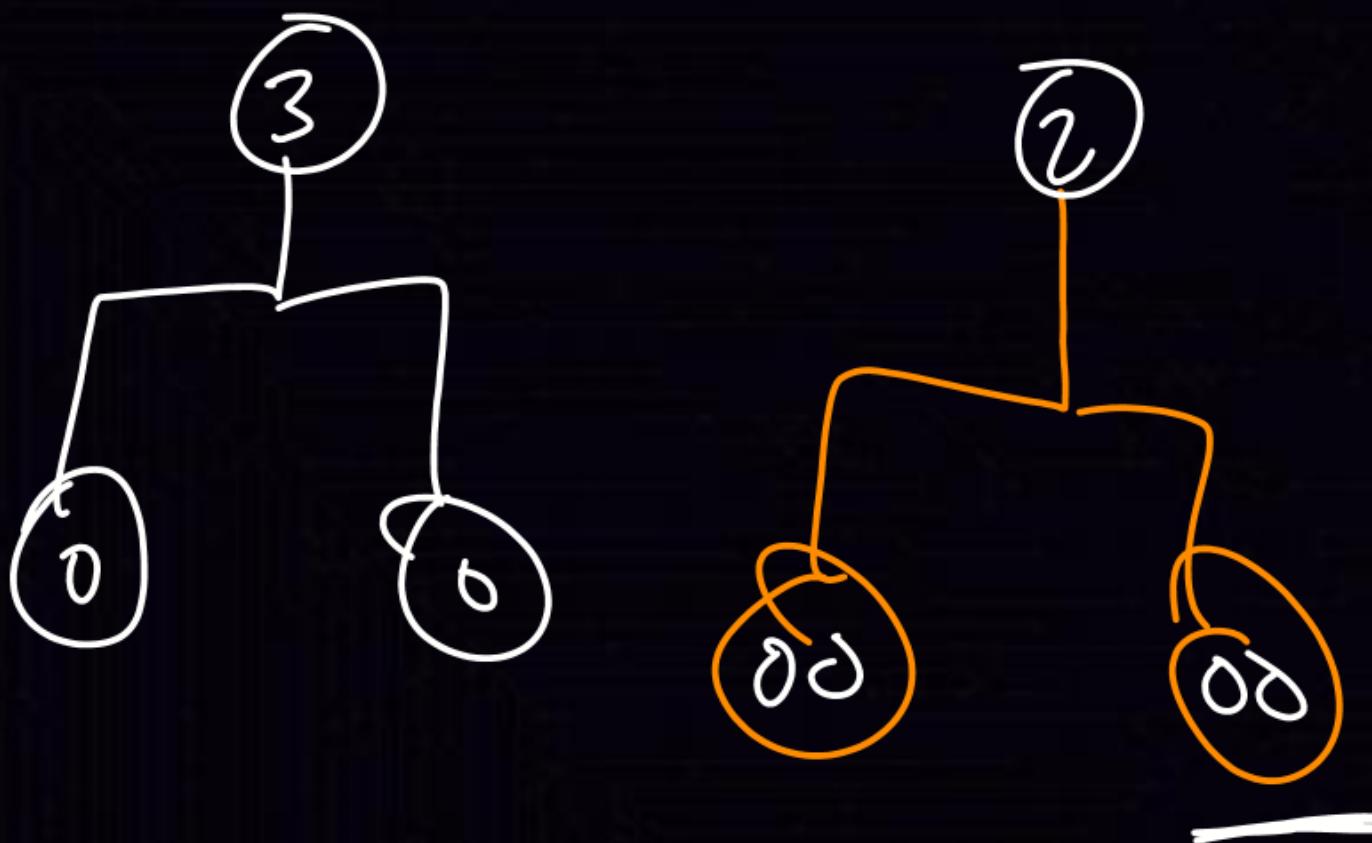
# IRRATIONAL NUMBERS





Q.

There are 8 balls of which one is defective. Given that the defective ball is of less weight and remaining are of equal weights. What are the minimum number of chances a common balance is to be used to find the defective one?



1 chance

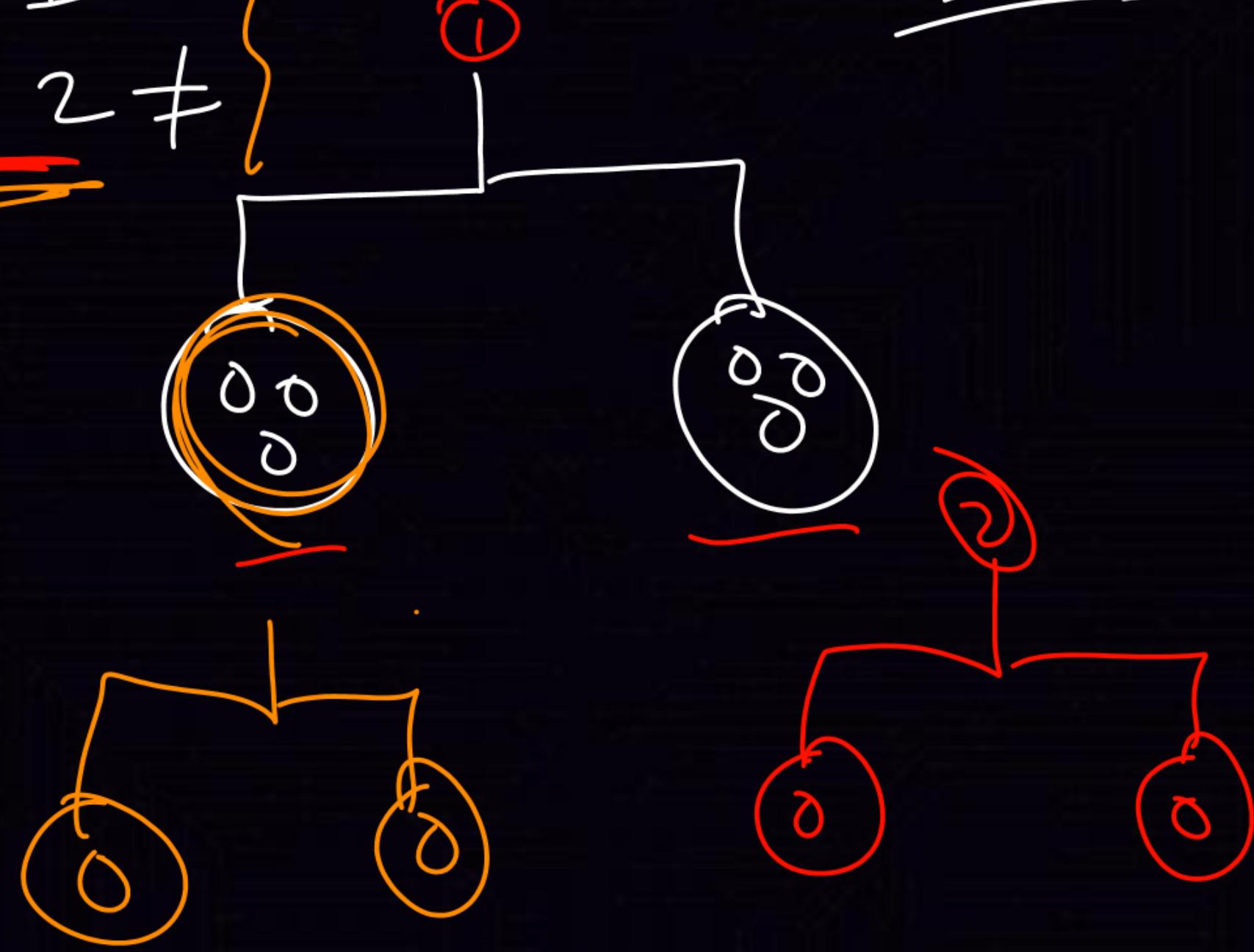
2 chance



## Explanation

~~Case 1 =~~  
~~Case 2 ≠~~

✓  
✓  
Where  
8 balls  
↓  
6 balls





A bag consist of 48 red colour balls, 16 green colour balls, 12 yellow colour balls, 14 grey colour balls, 11 black colour balls and 16 white colour balls. How many minimum number of balls are to be taken out from the bag randomly so that we get atleast two balls of same colour?



Q.

There are 4 red, 5 green, and 6 blue balls inside a box. If  $N$  number of balls are picked simultaneously, what is the smallest value of  $N$  that guarantees there will be at least two balls of the same colour?  
One cannot see the colour of the balls until they are picked.



Q.

A shelf consist of 40 socks. 40% of these are black and remaining are white. How many minimum number of socks are to taken out from the shelf randomly (blindly), so that we get atleast two black socks?

2 white  
18

$$\frac{40}{B} = \underline{\underline{16}}$$

$$24 \approx \underline{\underline{25}}$$

26  
2 Black



Q.

A box consist of 40 pairs of shoes of equal size. 40% of these are black and remaining are white. How many minimum number of shoes are to taken out from the box randomly, so that we get atleast a pair of black shoes?

$$\begin{array}{r} + 48 \\ + 16 \\ \hline 64 \end{array}$$

Bl. 80  
32

White  
48



