SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VQAR 1- QUANTITATIVE APTITUDE AND REASONING

II YEAR/ III SEMESTER

UNIT 1 – QUANTITATIVE ABILITY I

TOPIC 3 – LCM & HCF

LCM

“Least Common Multiple”

The smallest multiple that is common to

2 or more numbers.

Factors and multiples

If a number a divides another number b exactly we say that a is a factor of b and we write a/b. In this case b is called a multiple of a.

Lets find,

LCM of 4 & 6

- List the Multiples of Both
- The smallest Number common to both Lists

is the **LCM**

Lets find,

LCM of 4 & 6

- Multiples of 4 : 4 8 (12) 16 20 24
- Multiples of 6 : 6 (12) 18 24

LCM of 4 & 6 is 12.

How to react with 3 Numbers,

- List the multiples of each Numbers
- **Find the Lowest value in all 3 Sets**

Lets find,

LCM of 3, 6 & 10

- Multiples of 3 : 3 6 9 12 15 18 21 24 27 30
- Multiples of 6 : 6 12 18 24 30
- Multiples of 10 : 10 20 30

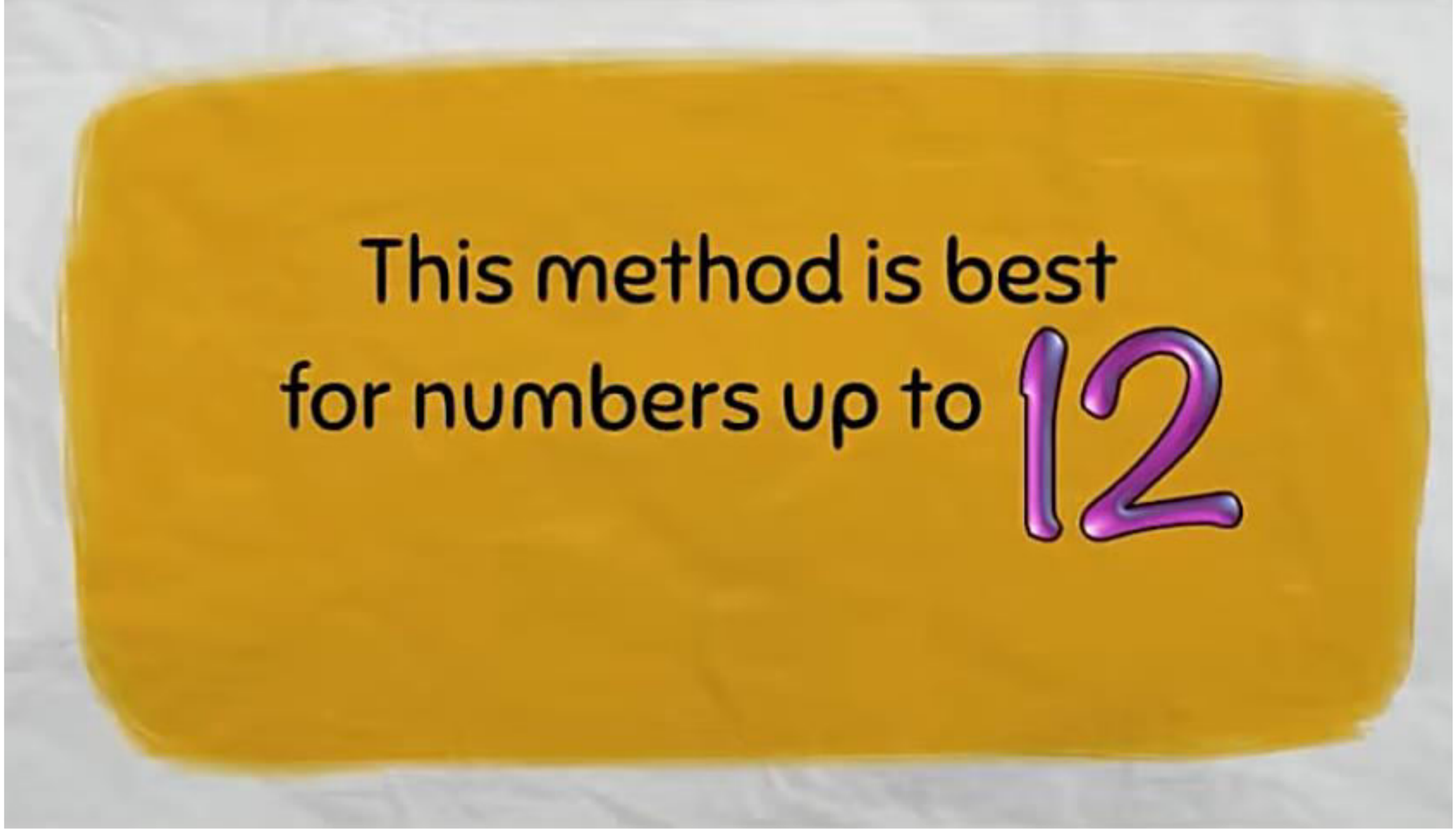
LCM of 3, 6 & 10 is 30.

Lets see one interesting thing,

LCM of 3 & 12 Where 3 is a multiple of 12.

- Multiples of 3 : 3 6 9 (12)
- Multiples of 12 : (12) 24

LCM of 3 & 12 is 12.



Then How to Deal with Greater Number.....???

In general,

LCM of 12 & 32

- Multiples of 12 : 12 24 36 48 60 72 84 96 108
- Multiples of 32 : 32 64 96

LCM of 12 & 32 is 96.

“PRIME FACTORIZATION”

Lets see one interesting thing,

LCM of 12 & 32

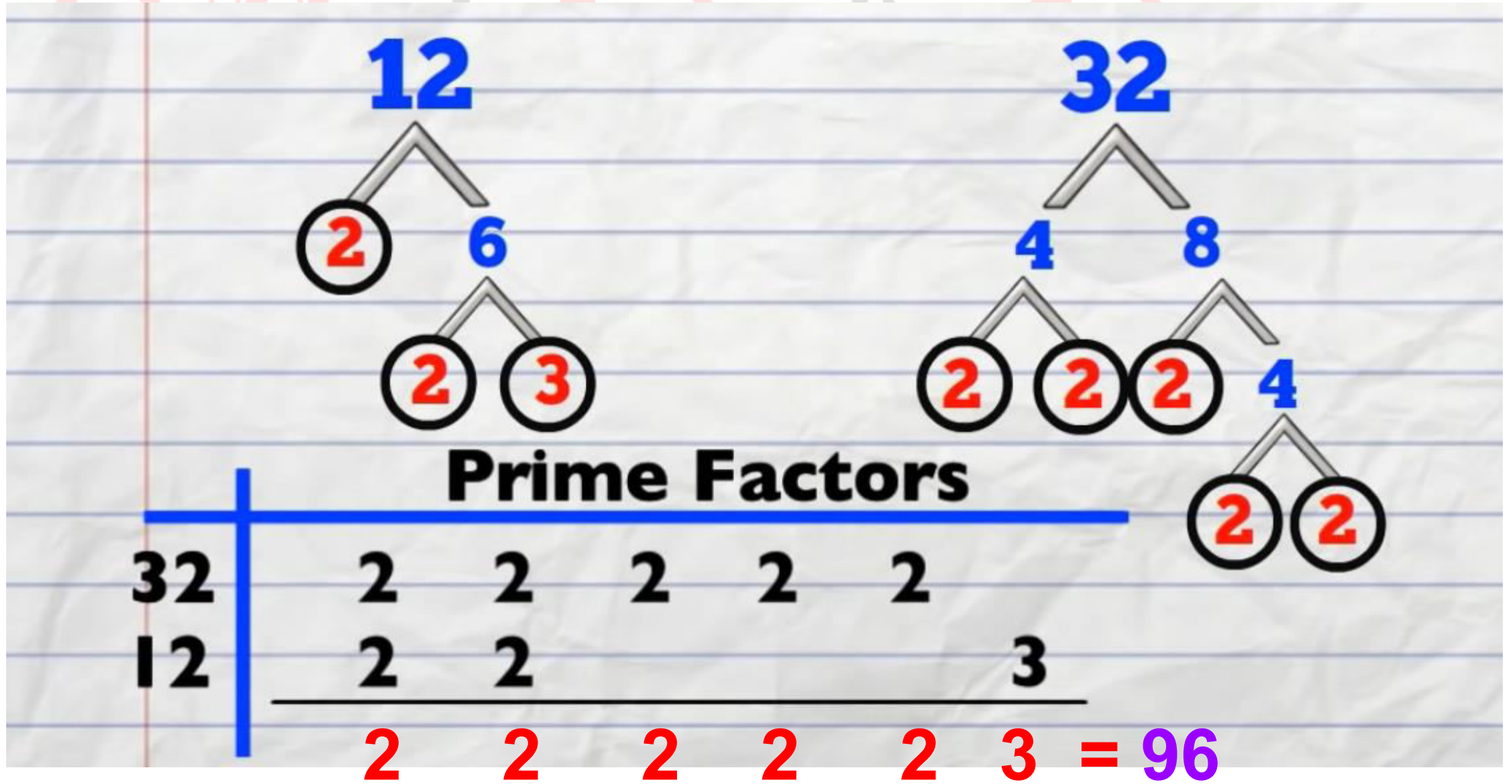
We try

"PRIME FACTORIZATION"

It Works For Any Number

Lets see one interesting thing,

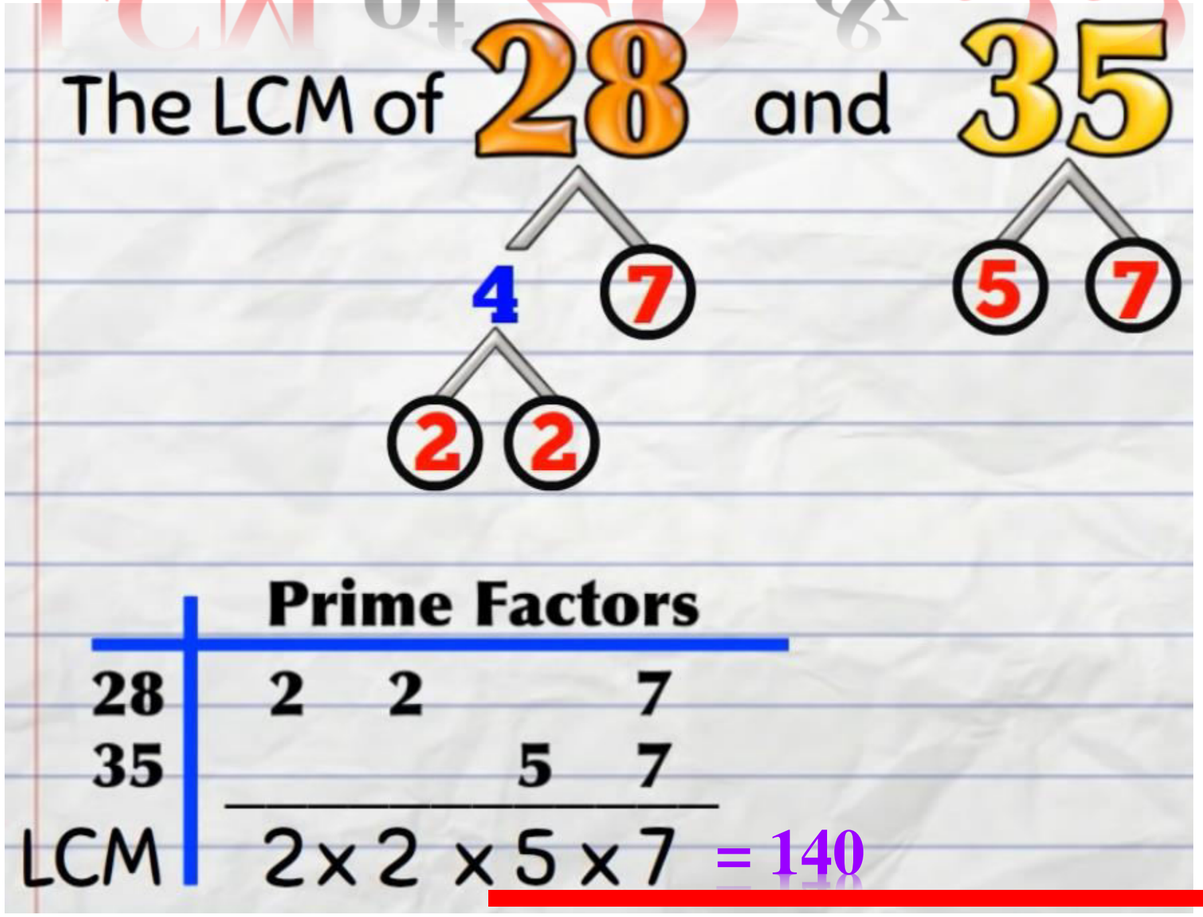
LCM of 12 & 32 is 96.



- Use One Factor from every column
- **Only One Factor from a vertical column**

Lets see one interesting thing,

LCM of 28 & 35 is 140.



- Match Factors Vertically.
- **Leave Space if No Match**

Remember...

THE MORE PRACTICE YOU DO

THE STRONGER YOUR MATH MUSCLES BECOME

SOLUTION VIDEO

GCF

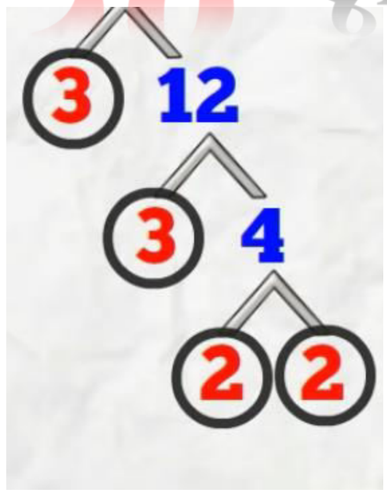
“Greatest Common Factor”

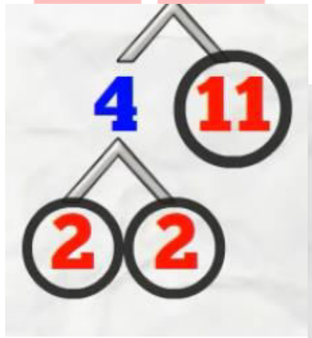
The Largest value that divides exactly

into 2 or more numbers.

Lets find LCM and GCF of

36 & 44





	Prime Factors				
36	2	2	3	3	
44	2	2			11

LCM: 2 x 2 x 3 x 3 x 11 = 396

GCF: 2 x 2 = 4

Lets find LCM and GCF of

10 & 21

	Prime Factors		
10	2	5	
21		3	7

- If there is no common factor
- **GCF will be 1.**
- **Because every number has 1 as a factor.**

LCM

1. Find lcm of 72,108,2100

References

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Thank You