

FACTORS

When a number is exactly divisible by another number (without leaving a remainder), the divisor is said to be a factor of the dividend.

$$5 \times 2 = 10$$

Factors

Here, 1, 2, 5, 10 are the factors of 10.

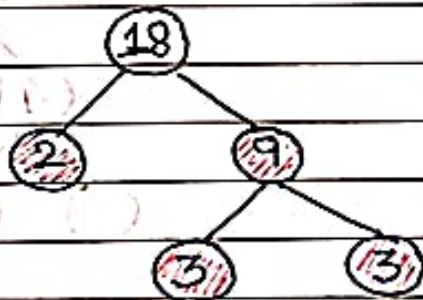
FACTS ABOUT FACTORS:

- 1 is a factor of every number. It is also the smallest factor.
- The greatest factor of a number is the number itself.
- A number has finite factors.
- Every number has at least two factors, namely 1 and the number itself.

FACTOR TREE

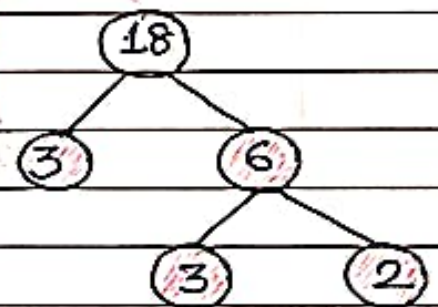
Example:

Factor of 18 by factor tree



$$18 = 2 \times 3 \times 3$$

OR:



$$18 = 3 \times 3 \times 2$$

WORKSHEET-3

1) Write 'True' or 'False'

- a) 3 and 5 are factors of 15 -
- b) 8 and 9 are factors of 86 -
- c) 5 and 7 are factors of 35 -

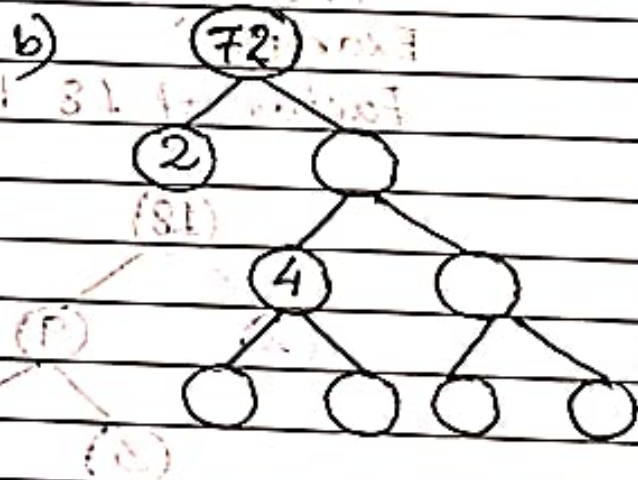
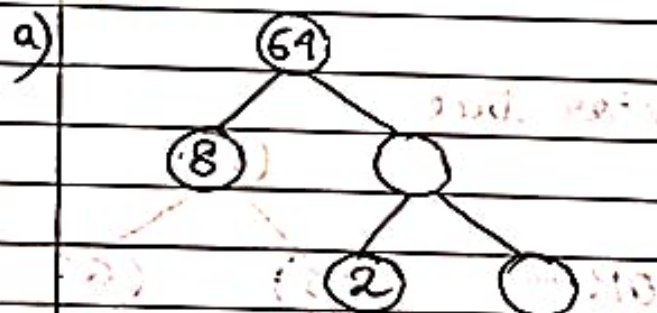
2) Find the factors of the following numbers:
i) 12 ii) 24 iii) 55 iv) 36

3) Find the factors of the following by using factor tree:
i) 28 ii) 42 iii) 54

4) Is 9 a factor of 63?

5) Find the common factor of the following
i) 12, 24 ii) 25, 36

6) Complete the factor tree:



WORKSHEET [FACTORS]

- 1) Find Factors of 48, 27 by division method.
- 2) Find Factors of 60, 35 by multiplication method.
- 3) Find the common factors of the following:
 - a) 12, 24
 - b) 25, 36
- 4) Check whether the first number is a factor of second number in the following pairs:-
 - a) 6, 74
 - b) 8, 96
 - c) 10, 205

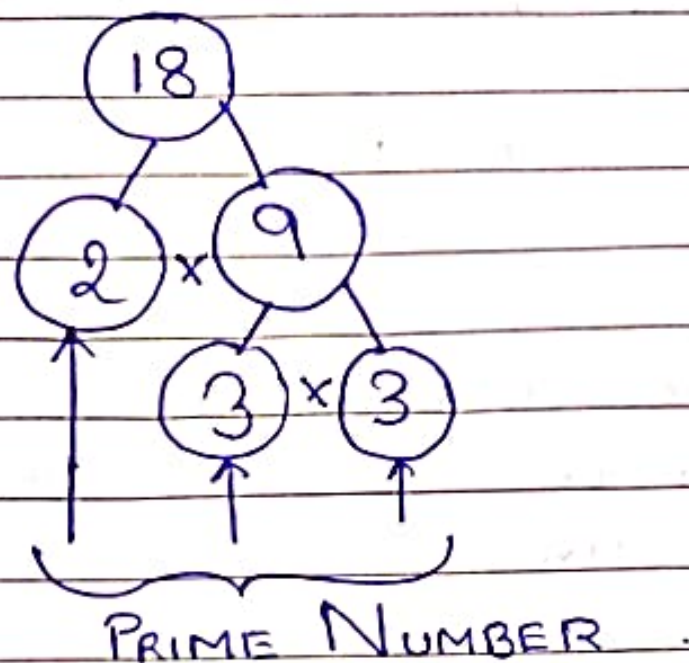
Ch 11: TABLES & SHARES

WORKSHEET

- 1) Circle the common factors of 36 and 40
2, 3, 4, 5, 8, 9, 10, 12, 18, 20
- 2) Prime numbers have only _____ (2/4)
Factors, _____ and _____.
(2; 1 / itself; 1).
- 3) State 'True' or 'False':-
 - a) Every number is a multiple of itself.
 - b) A number which is not multiple of 2 is an odd number.
 - c) There are finite number of multiples of a number.
 - d) 1 is a multiple of every number.
- 4) Find the multiples of 5 less than 40
- 5) Find first 4 even multiples of 3
- 6) Find two multiples of 4 ending with the digit 6 in ones place and less than 40.

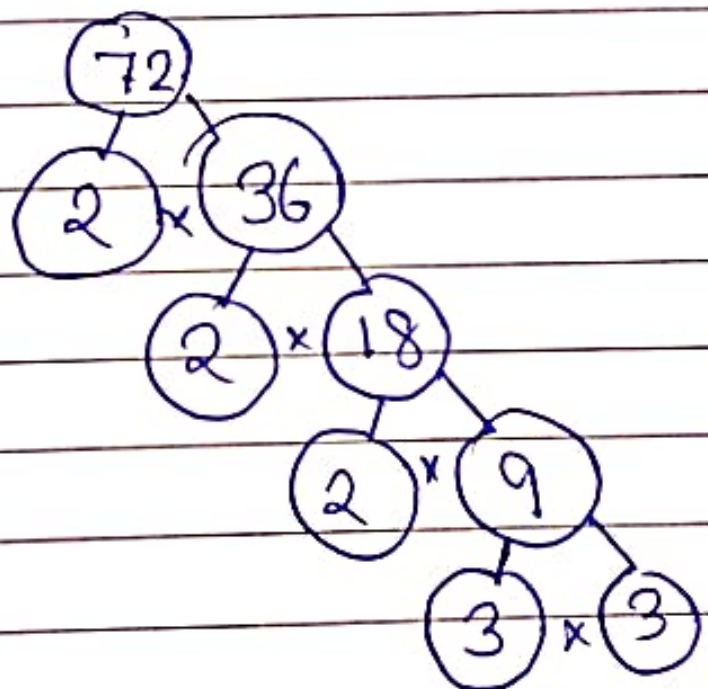
Ch 11: TABLES AND SHARES

① FACTOR TREE of 18



** Stop when you get all primes or 1.

② FACTOR TREE OF 72



Test of Divisibility:-

Divided by	If	Example
2	The last digit of the number is an even number i.e. 0, 2, 4, 6, 8	14 <u>2</u> Divisible by 2
3	The sum of the digits of the number is divisible by 3	354 $3 + 5 + 4 = 12$ $12 \div 3 = 4$ $\therefore$ 354 divisible by 3
4	The last two digits are divisible by 4	10089 <u>12</u> is divisible by 4 as 12 is divisible by 4.
5	The last digit of the number is 5 or 0	29 <u>5</u> is divisible by 5
10	The last digit of the number is 0.	<u>10</u> is divisible by 10. 295 not divisible by 10

Ch11: TABLES AND SHARE.

WORKSHEET.

1) Draw Prime Factorization tree of:-

a) 24

b) 45

c) 63

2) Arrange the numbers in columns as per their divisibility by 2, 3, 4, 5 and 10 respectively.

20, 303, 2048, 3260, 4565,
1178, 4850, 4150, 129, 303,
429

LAST STUDY

- 1) Manjreet buys groceries online as well as from local Kirana Store. She found the following prices online:-

10 Kg Sugar	Rs 400
2 Kg Salt	Rs 200
1 Kg Fish	Rs 280

He found that cost of sugar per Kg is Rs 30 cheaper, cost of salt per Kg is Rs 40 cheaper and cost of Fish is Rs 60 cheaper from the Kirana store than Online.

Answer the following:-

- Find the cost of ~~per~~ per Kg Sugar from Online.
- Find the cost of per Kg salt from Online.
- Find the cost of one Kg sugar at Kirana store.

Find the total cost of 2 Kg Sugar, 3 Kg salt and 1 Kg fish from Kirana store.