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Lecture Sheet-2 (17.05.2020)

Class 4

Math

Chapter 7

Factors

Factors:

Numbers which divide a number without a remainder are called the Factors.

Factors are also called divisors.

Factors of 6:

1, 2, 3, 6

Note: 1 and the number itself will be always factors of a number. And other factors of that number will be between 1 and the number itself.

Such as 1 and 6 itself are factors of 6 and other factors 2, 3 are between 1 and 6.

[Factors of a number are less than or equal to the number and they are limited, countable.]

Common factors (CF) and Highest Common Factor (HCF):

[*To find CF count minimum two number's Factors*]

Factors of 8:

<u>1</u>, <u>2</u>, <u>4</u>, 8

Factors of 12:

<u>1</u>, <u>2</u>, 3, <u>4</u>, 6, 12

Underlined factors are the factors of Both 8 and 12.

So, they (1, 2 and 4) are the common factors (CF) of 8 and 12.

And 4 is the highest of them. So the Highest Common Factor (HCF) is 4.

Prime numbers:

A number which has 2 factors, 1 and the number itself, is called Prime number.

Factors of 5:

1, 5

5 has only two factors, 1 and 5 itself. So 5 is the Prime Number.

Composite numbers:

A number which has 3 or more factors including 1 and the number itself, is called Composite number.

Factors of 9:

1, 3, 9

9 has three factors including 1 and 9 itself. So 9 is the composite number.

Note: 1 has only one factor, 1 itself. So 1 is neither prime nor composite number.

Solutions of Exercise word problems:

After reading all the word problems,

Question(1): Can you understand how you will solve the problem?

Answer(1): By applying LCM and HCF method.

Question(2): When will you apply HCF method?

Answer(2): You will apply HCF method when you will understand that the result will be smaller than the numbers used in the method from the problem.

Trick:

If you see the following numbers in the word problem, you will apply HCF method.

(**Highest, largest, longest, biggest, maximum, distribute, divide**)

Answer to the Question no. 9:

The length of the side of <u>biggest</u> square can be found by finding HCF of 36 and 24.

Factors of 36:

1, 2, 3, 4, 6, 9, <u>12</u>, 18, 36

Factors of 24:

1, 2, 3, 4, 6, 8, <u>12</u>, 24

Therefore the HCF is 12.

So the length of the side of the <u>biggest</u> square is 12 cm. (Answer)

Answer to the question no. 11:

Number of children can be found by finding HCF of 45 and 18.

Factors of 45:

1, 3, 5, <u>9</u>, 15, 45

Factors of 18:

1, 2, 3, 6, <u>9</u>, 18

Therefore the HCF is 9.

So the number of children is 9.

And each children gets apples = 45 ÷ 9

$$= 5$$

$$\text{Oranges} = 18 \div 9$$

$$= 2 \text{ (Answer)}$$

End