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Work Sheet-2 Full Solution Method (20.05.2020)

Class 4

Math

Chapter 7

Factors

Answer (1):

Factors of 2: 1, 2

Factors of 3: 1, 3

Factors of 4: 1, 2, 4

Factors of 8: 1, 2, 4, 8

Factors of 10: 1, 2, 5, 10

Factors of 12: 1, 2, 3, 4, 6, 12

Factors of 15: 1, 3, 5, 15

Factors of 25: 1, 5, 25

Factors of 30: 1, 2, 3, 5, 6, 10, 15, 30

Factors of 36: 1, 2, 3, 4, 6, 9, 12, 18, 36

Factors of 45: 1, 3, 5, 9, 15, 45

Answer (2):

i)

Factors of 3: 1, 3

Factors of 6: 1, 2, 3, 6

∴ The Common Factors (CF) of 3 and 6: 1, 3

So the Highest Common Factor (HCF) is 3.

ii)

Factors of 4: 1, 2, 4

Factors of 8: 1, 2, 4, 8

∴ The Common Factors (CF) of 4 and 8: 1, 2, 4

So the Highest Common Factor (HCF) is 4.

*[*In the same way solve iii, iv, v, vi, viii, ix.]*

vii)

Factors of 4: 1, 2, 4

Factors of 6: 1, 2, 3, 6

Factors of 12: 1, 2, 3, 4, 6, 12

∴ The Common Factors (CF) of 4, 6 and 12: 1, 2

So the Highest Common Factor (HCF) is 2.

*[*In this way solve x.]*

Answer (3):

1. Factors of 2: 1, 2

Since 2 has exactly two factors, 1 and 2 itself

So 2 is a prime number.

3. Factors of 4: 1, 2, 4

Since 4 has more than two factors

So 4 is a composite number.

[In this way solve others]

Answer (4):

Prime numbers within 1-100:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, and 97.

Answer 5(i):

The length of the side of the largest square size mat can be found by calculating HCF of 48 and 32.

Factors of 48:

1, 2, 3, 4, 6, 8, 12, 16, 24, 48

Factors of 32:

1, 2, 4, 8, 16, 32

Therefore the HCF is 16.

So the length of the side of the largest square size mat is 16 meters. (Answer)

Answer 5(ii):

The number of friends can be found by calculating HCF of 54 and 36.

Factors of 54:

1, 2, 3, 6, 9, 18, 27, 54

Factors of 36:

1, 2, 3, 4, 6, 9, 12, 18, 36

Therefore the HCF is 18.

So the number of friends is 18.

And each friend will get pens = $54 \div 18$

$$= 3$$

$$\text{pencils} = 36 \div 18$$

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