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WORKSHEET (8)

Date: (13-8-20)

Class - VI

Subject - Mathematics

Teacher: Mrs. Poonam Sunil

Good Morning Students!

Ex. 3.6

Q1 Find the HCF of the following numbers

a) 18, 48

$$\begin{array}{r|l} 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 48 \\ \hline 2 & 24 \\ \hline 2 & 12 \\ \hline 2 & 6 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$$

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

$$48 = 2 \times 2 \times 2 \times 2 \times 3$$

$$\text{HCF} = 2 \times 3 = 6 \text{ Ans}$$

b) 30, 42

$$\begin{array}{r|l} 2 & 30 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 42 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$$30 = 2 \times 3 \times 5$$

$$42 = 2 \times 3 \times 7$$

$$\text{HCF} = 2 \times 3 = 6 \text{ Ans}$$

c) 18, 60

$$\begin{array}{r|l} 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 60 \\ \hline 2 & 30 \\ \hline 3 & 15 \\ \hline 5 & 5 \\ \hline & 1 \end{array}$$

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

$$60 = 2 \times 2 \times 3 \times 5$$

$$\text{HCF} = 2 \times 3 = 6 \text{ Ans}$$

d) 27, 63

$$\begin{array}{r|l} 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 3 & 63 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$$27 = 3 \times 3 \times 3$$

$$63 = 3 \times 3 \times 7$$

$$\text{HCF} = 3 \times 3 = 9 \text{ Ans}$$

e) 36, 84

$$\begin{array}{r|l} 2 & 36 \\ \hline 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 84 \\ \hline 2 & 42 \\ \hline 3 & 21 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$$36 = 2 \times 2 \times 3 \times 3$$

$$84 = 2 \times 2 \times 3 \times 7$$

$$\text{HCF} = 2 \times 2 \times 3 = 12 \text{ Ans}$$

P.T.O

f) 34, 102

$$\begin{array}{r|l} 2 & 34 \\ \hline 17 & 17 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 102 \\ \hline 3 & 51 \\ \hline 17 & 17 \\ \hline & 1 \end{array}$$

$34 = 2 \times 17$

$102 = 2 \times 3 \times 17$

$HCF = 2 \times 17 = 34 \text{ Ans}$

g) 70, 105, 175

$$\begin{array}{r|l} 2 & 70 \\ \hline 5 & 35 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 3 & 105 \\ \hline 5 & 35 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 5 & 175 \\ \hline 5 & 35 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$70 = 2 \times 5 \times 7$

$105 = 3 \times 5 \times 7$

$175 = 5 \times 5 \times 7$

$HCF = 5 \times 7 = 35 \text{ Ans}$

h) 91, 112, 49

$$\begin{array}{r|l} 7 & 91 \\ \hline 13 & 13 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 112 \\ \hline 2 & 56 \\ \hline 2 & 28 \\ \hline 2 & 14 \\ \hline 7 & 7 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 7 & 49 \\ \hline 7 & 7 \\ \hline & 1 \end{array}$$

$91 = 7 \times 13$

$112 = 2 \times 2 \times 2 \times 2 \times 7$

$49 = 7 \times 7$

$HCF = 7 \text{ Ans}$

i) 18, 54, 81

$$\begin{array}{r|l} 2 & 18 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 2 & 54 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array} \quad \begin{array}{r|l} 3 & 81 \\ \hline 3 & 27 \\ \hline 3 & 9 \\ \hline 3 & 3 \\ \hline & 1 \end{array}$$

$18 = 2 \times 3 \times 3$

$54 = 2 \times 3 \times 3 \times 3$

$81 = 3 \times 3 \times 3 \times 3$

$HCF = 3 \times 3 = 9 \text{ Ans}$

Q2 What is the HCF of two consecutive

a) numbers?

Ans. 1

b) even numbers

Ans. 2

c) odd numbers.

Ans. 1

Q3.

4 and 15 are
coprime numbers \therefore No, $HCF = 1$