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Mathematics Assignment 5-Answer Key

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Session 2025 – 26
Class – V
MATHEMATICS
L- 5 (Factors and Multiples) and L – 6 (HCF and LCM)
ASSIGNMENT – 5

1. **Fill in the blanks:**
   a) 7th multiple of 8 - 4th multiple of 4 = 8th multiple of 5.
   b) The greatest factor of 98 is 98.
   c) 2 and 3 are the consecutive prime numbers.
   d) Two numbers having only 1 as their common factor are called coprimes.
   e) 10 is the smallest 2 digit composite number.

2. **Find all the factors of 60.**
   Factors of 60 are:
   1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

3. **Circle the pairs of twin primes**
   a) 13 and 17  b) 21 and 23  c) 29 and 31  d) 71 and 73

4. **Find the first 10 multiples of the given pair of numbers. Then list their three common multiples and also find their L.C.M.**

   **4 , 6**

   Multiples of 4 = 4, 8, 12, 16, 20, 24, 28, 32, 36, 40

   Multiples of 6 = 6, 12, 18, 24, 30, 36, 42, 48, 54, 60

   Common multiples = 12, 24, 48

   L.C.M. = 12

5. **Find the common factors and the HCF (Highest Common Factor) of the given pair of numbers.**

   18, 27

   Factors of 18 = 1, 2, 3, 6, 9, 18

   Factors of 27 = 1, 3, 9, 27

   Common factors = 1, 3 and 9

   HCF = 9

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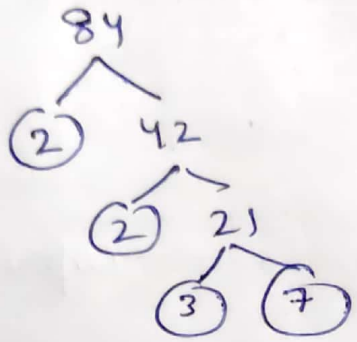
6. Find the prime factorisation of the following numbers:

a) 84 (using the factor tree method)




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

b) 75 (using the division method)

| | |
|---|---|
| 3 | 75 |
| 5 | 25 |
| 5 | 5 |
| | 1 |

$75 = 3 \times 5 \times 5$

7. Find the HCF of 24, 32 and 48 by the prime factorisation method.

$24 = 2 \times 2 \times 2 \times 3$

$32 = 2 \times 2 \times 2 \times 2 \times 2$

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

$HCF = 2 \times 2 \times 2$

$HCF = 8$

| | |
|---|---|
| 2 | 24 |
| 2 | 12 |
| 2 | 6 |
| 3 | 3 |
| | 1 |

| | |
|---|---|
| 2 | 32 |
| 2 | 16 |
| 2 | 8 |
| 2 | 4 |
| 2 | 2 |
| | 1 |

| | |
|---|---|
| 2 | 48 |
| 2 | 24 |
| 2 | 12 |
| 2 | 6 |
| 3 | 3 |
| | 1 |

8. Find the LCM of 48 and 60 using division method.

| | | |
|---|---|---|
| 2 | 48 | 60 |
| 2 | 24 | 30 |
| 3 | 12 | 15 |
| | 4 | 5 |

$LCM = 2 \times 2 \times 3 \times 4 \times 5$

$= 240$

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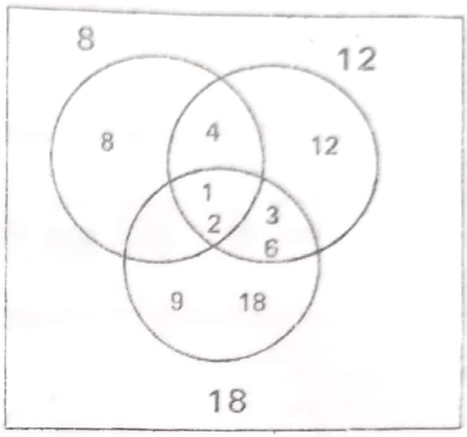
9. **Case Study:**

**The given diagram represent the factors of 8,12 and 18. Read the diagram and answer the following question:**




a. How many common factors are there in 12 and 18? 1, 2, 3, 6

b. Is 4 a common factor of 8 and 12? Yes

c. What are the common factors of 8 and 18? 1 and 2

d. What are the common factors of 8, 12 and 18? 1 and 2

e. Is 8 and 18 a pair of co-prime number? No

**10. Solve the following problem sums: (Write statements and show working)**

a. Sohail wants to plant 28 marigold plants and 36 rose plants in his garden. What is the greatest number of rows possible if each row has the same number of marigold plants and the same number of rose plants?

The greatest no. of rows is the HCF of 28 and 36

$28 = 2 \times 2 \times 7$

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

$HCF = 2 \times 2$

$HCF = 4$

The required number of rows are 4.

| 2 | 28 |
|---|---|
| 2 | 14 |
| 7 | 7 |
| | 1 |

| 2 | 36 |
|---|---|
| 2 | 18 |
| 3 | 9 |
| 3 | 3 |
| | 1 |

b. Three bells ring at intervals of 8, 15 and 16 seconds respectively. At what time will they ring together if they start ringing at 10 a.m?

LCM of 8, 15 and 16

$= 2 \times 2 \times 2 \times 2 \times 15 = 240$

LCM = 240

240 seconds = 4 mins

| 2 | 8, 15, 16 |
|---|---|
| 2 | 4, 15, 8 |
| 2 | 2, 15, 4 |
| | 1, 15, 2 |

∴ The bells will ring together after 4 minutes, at 10:04 am

c. The product of two numbers is 120. If their H.C.F. is 6 what is their L.C.M.

$$LCM = \frac{\text{Product of two numbers}}{HCF}$$

$$\frac{120}{6} = 120 \div 6$$

$$LCM = 20$$

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Mindspark Questions:

1. Without actually dividing say which of the following numbers when divided by 3 will give remainder 0?

a) 495 b) 326 c) 306 d) 709

2. Look at the pattern given below.

If the pattern is continued, what will be the 90th term?

a)  b)  c) 

3. Sneha wants to make a 5-digit number divisible by 4. She arranges 4 numbers as shown below. Which number card should she use so that the number she gets is divisible by 4? (She can repeat digits.)

| 7 | 3 | 5 | 2 |
|---|---|---|---|

a) 0 b) 2 c) 6 d) 7

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