

# Factors and Multiples

Q1. State true or false:

- a. There are many even prime numbers. \_\_\_\_\_
- b. 1 is the smallest odd prime number. \_\_\_\_\_
- c. 6 and 7 are co-prime numbers. \_\_\_\_\_
- d. The HCF of (Any even number,2) is 2. \_\_\_\_\_

Q2. Check the divisibility of the following numbers and write Yes or No in the boxes:

Number	Divisible By		
	4	8	11
20488			
12100			
88044			
1760			

Q3. Fill in the blanks:

- a. A number is divisible by 24, if it is divisible by both \_\_\_\_ and \_\_\_\_.
- b. A number is divisible by 36, if it is divisible by both \_\_\_\_ and \_\_\_\_.
- c. A number is divisible by 12, if it is divisible by both \_\_\_\_ and \_\_\_\_.

Q4. From the numbers given below cross out the prime numbers:

2	54	28	51
22	3	31	46
27	61	5	39
37	93	90	49

Q5. Find the HCF of the following using the prime factorisation method:

- a. 93, 39  
Answer: \_\_\_\_\_
- b. 75, 60  
Answer: \_\_\_\_\_





**Q14. Read the passage carefully and fill in the blanks:**

There are 20 students in Class V-A and 25 students in class V-B. Shikha wants to distribute sweets in both the classes such that every student of a class gets the same number of sweets and no sweets are left over.

If she brings a packet of 50 sweets each for Class V-A and Class V-B, then:

Each student of class V-A will get \_\_\_\_\_ sweets, \_\_\_\_\_ sweets will be left over

Each student of class V-B will get \_\_\_\_\_ sweets, \_\_\_\_\_ sweets will be left over

But if she brings a packet of \_\_\_\_\_ sweets each for Class V-A and Class V-B, then:

Each student of class V-A will get \_\_\_\_\_ sweets, 0 sweets will be left over

Each student of class V-B will get \_\_\_\_\_ sweets, 0 sweets will be left over

**Q15. Find whether the following scenarios are possible or not. Give reasons for your answer:**

a. Swati knows a number which does not have 1 as its factor.

Answer: \_\_\_\_\_

b. Rishabh has found the HCF of 89908 and 56082 as 60082.

Answer: \_\_\_\_\_

c. Garima has found two pairs of numbers that have the same LCM.

Answer: \_\_\_\_\_

d. Sushil knows a number that is even but also prime.

Answer: \_\_\_\_\_

# ANSWERS

1. a. False  
b. False  
c. True  
d. True

2.

Number	Divisible By		
	4	8	11
20488	Yes	Yes	No
12100	Yes	No	Yes
88044	Yes	No	Yes
1760	Yes	Yes	Yes

3. a. 3 and 8  
b. 4 and 9  
c. 3 and 4

4.

<del>2</del>	54	28	51
22	<del>8</del>	<del>31</del>	46
27	<del>61</del>	<del>5</del>	39
<del>37</del>	93	90	49

5. a. 3  
b. 15

6. 8

7.

					4									
1	2	0	5	4	4									
		—	4	8	0			1						
				6	4	1	2	0						
						—	6	4		1				
							5	6	6	4				
								—	5	6		7		
										8	5	6		
											5	6		
												0		

HCF = 8

8. 5 plants
9. 1008
10. 1764

11.

1 <sup>st</sup> number	2 <sup>nd</sup> number	HCF	LCM	Product of HCF and LCM
28	24	4	<u>168</u>	<u>672</u>
91	104	13	<u>728</u>	<u>9464</u>
15	<u>7</u>	<u>1</u>	<u>105</u>	105
<u>42</u>	63	<u>21</u>	<u>126</u>	2646

12. 15<sup>th</sup> stair
13. 8
14. Each student of class V-A will get 2 sweets, 10 sweets will be left over  
 Each student of class V-B will get 2 sweets, 0 sweets will be left over  
 But if she brings a packet of 100 sweets each for Class V-A and Class V-B, then:  
 Each student of class V-A will get 5 sweets, 0 sweets will be left over  
 Each student of class V-B will get 4 sweets, 0 sweets will be left over
15.
  - a. Not possible. Every number has 1 as its factor.
  - b. Not Possible. HCF of two numbers cannot be greater than the smallest number.  $60082 > 56082$
  - c. Possible. (2, 8) and (4, 8) have the same LCM: 8.
  - d. Possible. 2 is an even prime number.