

CBSE CLASS 6 MATHEMATICS

PRIME TIME — MCQ WORKSHEET

Name: _____

Class: _____

Date: _____

Answer all questions. Choose the correct option.

A. 5 MCQs

1. Which is a common multiple of 6 and 8?

- A) 18
- B) 24
- C) 30
- D) 42

2. Which is a common factor of 18 and 30?

- A) 4
- B) 5
- C) 6
- D) 9

3. Factors of a number are also called its:

- A) multiples
- B) divisors
- C) products
- D) primes

4. Which statement is correct?

- A) A number has infinitely many factors
- B) Factors of a positive whole number are finite
- C) All factors are prime
- D) All factors are even

5. Which is a perfect number?

- A) 6
- B) 8
- C) 10
- D) 12

B. 5 TRUE OR FALSE

6. 6 is a common factor of 12 and 24.

7. 75 is a common multiple of 15 and 25.

8. The factors of a positive whole number are finite.

9. 1 is a prime number.

10. 6 is perfect because $1 + 2 + 3 = 6$.

C. 5 FILL IN THE BLANKS

11. The first three common multiples of 4 and 6 are ____, ____ and ____.
12. The common factors of 12 and 18 are ____.
13. A factor of a number is also called its ____.
14. The factors of a positive whole number are always ____.
15. A number equal to the sum of its proper factors is called a ____ number.

D. 5 WORD PROBLEMS

16. Two bells ring every 6 min and 8 min. If they ring together now, after how many minutes will they ring together again?
17. A teacher has 24 red and 36 blue pencils. What is the greatest number of identical groups she can make using all pencils?
18. A student says the factors of 28 are 1,2,4,7,28. Is she correct?
19. 45 notebooks and 60 pencils are packed into identical kits using all items. What is the greatest number of kits?
20. A number has proper factors 1, 2 and 3, and their sum equals the number. Which number is it?

ANSWER KEY WITH SOLVING STEPS

Q.	Answer	Explanation / Working
1	B	$\text{LCM}(6,8)=24$; so 24 is a common multiple.
2	C	Factors of 18 and 30 include 6; therefore 6 is common.
3	B	A factor divides a number exactly; divisor is another name for factor.
4	B	A positive whole number has a finite, countable set of factors.
5	A	Proper factors of 6: 1,2,3. Their sum is 6, so 6 is perfect.
6	True	$12 \div 6 = 2$ and $24 \div 6 = 4$.
7	True	$15 \times 5 = 75$ and $25 \times 3 = 75$.
8	True	Factors can be listed completely, so they are finite.
9	False	1 has exactly one factor; a prime number has exactly two factors.
10	True	$1+2+3=6$.
11		Multiples of 4 and 6 first meet at 12, then 24, 36.
12		Common factors of 12 and 18 are 1,2,3,6.
13		Divisor is another name for a factor.
14		The factors of a positive whole number are finite.
15		A perfect number equals the sum of its proper factors.
16		Multiples: 6,12,18,24... and 8,16,24... First common multiple = 24 min.
17		$\text{HCF}(24,36)=12$. So 12 identical groups are possible.
18		$28=1 \times 28=2 \times 14=4 \times 7$, so 14 is also a factor.
19		$\text{HCF}(45,60)=15$. Thus 15 identical kits can be made.
20		$1+2+3=6$, so the number is 6; it is a perfect number.