

Factors and Multiples

Mathematics · Class 4 · Topic-wise Practice Worksheet

TIME 40 minutes	QUESTIONS 15	TOTAL MARKS 21	MAX. SCORE ___ / 21
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Name: _____ Class/Sec: _____ Date: _____

INSTRUCTIONS

- There are **15 questions** in this worksheet. All questions are compulsory.
- Each question has four options (A), (B), (C) and (D). Exactly **one** option is correct.
- Questions 1–12 carry **1 mark** each. Questions 13–15 (Achievers Section) carry **3 marks** each.
- There is no negative marking. Use of a calculator is **not** allowed.
- Rough work may be done in the space at the side of each page.

Section A — Mathematical Reasoning

Q1–Q8 · 1 mark each

1. Which of these is a factor of 24?

- | | |
|-------|-------|
| (A) 5 | (B) 6 |
| (C) 7 | (D) 9 |

2. How many factors does 12 have?

- | | |
|-------|--------|
| (A) 4 | (B) 5 |
| (C) 6 | (D) 12 |

3. Which of these is a multiple of 9?

- | | |
|--------|--------|
| (A) 27 | (B) 34 |
| (C) 46 | (D) 58 |

4. The smallest factor of every number is _____.

- | | |
|-------|-----------------------|
| (A) 1 | (B) 0 |
| (C) 2 | (D) The number itself |

5. Which of these numbers is **composite**?

- | | |
|--------|--------|
| (A) 2 | (B) 11 |
| (C) 21 | (D) 23 |

6. The HCF of 12 and 18 is _____.

- | | |
|-------|--------|
| (A) 2 | (B) 3 |
| (C) 6 | (D) 36 |

7. The LCM of 4 and 6 is _____.

- | | |
|--------|--------|
| (A) 2 | (B) 10 |
| (C) 12 | (D) 24 |

8. Which number is divisible by both 2 and 3?

- | | |
|--------|--------|
| (A) 14 | (B) 15 |
| (C) 18 | (D) 22 |

9. In the table below, which row is **incorrect**?

Row	Statement
(A)	1 is neither prime nor composite
(B)	2 is the only even prime number
(C)	Every number is a multiple of itself
(D)	Every number has a finite number of multiples

Table 9.1

- (A) Row (A)
- (B) Row (B)
- (C) Row (C)
- (D) Row (D)

10. Sweets are to be packed equally into bags of 6 or bags of 8, with none left over either way. What is the smallest number of sweets needed?

- (A) 14
(B) 24
(C) 36
(D) 48

11. Two ribbons are 24 cm and 36 cm long. They are cut into equal pieces of the greatest possible length, with none wasted. How long is each piece?

- (A) 12 cm (B) 6 cm
(C) 4 cm (D) 72 cm

12. Which of these numbers is divisible by 5 but **not** by 10?

- (A) 40 (B) 55
(C) 60 (D) 100

Achievers Section

Q13–Q15 · 3 marks each

13. Two bells ring together at 6 a.m. One rings every 12 minutes and the other every 18 minutes. At what time will they next ring together?

- (A) 6:30 a.m. (B) 7:00 a.m.
(C) 6:48 a.m. (D) 6:36 a.m.

14. What is the smallest number that must be added to 47 to make it divisible by 9?

- (A) 1 (B) 4
(C) 5 (D) 7

15. The product of two numbers is 96 and their HCF is 4. What is their LCM?

- (A) 12 (B) 24
(C) 48 (D) 384

Answer Key

1	B	2	C	3	A	4	A	5	C
6	C	7	C	8	C	9	D	10	B
11	A	12	B	13	D	14	D	15	B

Solutions

1. Answer: (B) 6

A factor divides a number exactly, leaving no remainder. $24 \div 6 = 4$ exactly, so 6 is a factor. 24 does not divide exactly by 5, 7 or 9.

2. Answer: (C) 6

The factors of 12 are 1, 2, 3, 4, 6 and 12 — that is **6** factors.

3. Answer: (A) 27

The multiples of 9 are 9, 18, **27**, 36, 45... Since $9 \times 3 = 27$, only 27 is a multiple of 9.

4. Answer: (A) 1

Every number divides exactly by **1**, so 1 is a factor of every number and is always the smallest. The largest factor is the number itself.

5. Answer: (C) 21

A composite number has more than two factors. $21 = 3 \times 7$, so its factors are 1, 3, 7 and 21. The others are all prime.

6. Answer: (C) 6

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

Factors of 18: 1, 2, 3, 6, 9, 18.

The common factors are 1, 2, 3 and 6, and the highest of these is **6**.

7. Answer: (C) 12

Multiples of 4: 4, 8, **12**, 16, 20, 24...

Multiples of 6: 6, **12**, 18, 24...

The smallest number in both lists is **12**.

8. Answer: (C) 18

For 2, the number must be even; for 3, its digit sum must be a multiple of 3. **18** is even and $1 + 8 = 9$, which is a multiple of 3. So 18 works — and it is therefore divisible by 6.

9. Answer: (D) Row (D)

Every number has **infinitely many** multiples — you can always multiply by a bigger number. It is the *factors* of a number that are finite. Rows (A), (B) and (C) are all correct.

10. Answer: (B) 24

We need the LCM of 6 and 8.

Multiples of 6: 6, 12, 18, **24**, 30...

Multiples of 8: 8, 16, **24**, 32...

The smallest number in both lists is **24** sweets.

11. Answer: (A) 12 cm

We need the HCF of 24 and 36.

Factors of 24: 1, 2, 3, 4, 6, 8, **12**, 24.

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

The highest common factor is **12 cm**.

12. Answer: (B) 55

A number divides by 5 if it ends in 0 or 5, and by 10 only if it ends in 0. **55** ends in 5, so it divides by 5 but not by 10. All the others end in 0.

13. Answer: (D) 6:36 a.m.

They ring together again after the LCM of 12 and 18 minutes.

Multiples of 12: 12, 24, **36**, 48...

Multiples of 18: 18, **36**, 54...

The LCM is 36 minutes, so they ring together at **6:36 a.m.**

14. Answer: (D) 7

List the multiples of 9 around 47: ... 36, 45, 54 ...

Since we must **add**, we go up to the next multiple, which is 54.

Number to add = $54 - 47 = 7$.

Check: $47 + 7 = 54 = 9 \times 6$. ✓

15. Answer: (B) 24

For any two numbers, $\text{HCF} \times \text{LCM} = \text{product of the numbers}$.

$4 \times \text{LCM} = 96$

$\text{LCM} = 96 \div 4 = 24$.