

MULTIPLES, PRIMES & COMPOSITES – GRADE 4

MIXED PRACTICE

8 mixed-practice questions covering multiples, prime/composite classification, factor pairs, and word problems

Name: _____ Date: _____

Instructions

Read each question carefully. For fill-in-the-blank questions, write your answer on the blank line. For word problems, show your work using equations and write a sentence explaining your answer. Check that your answers are reasonable before moving on.

Part A – Multiples

1. List the first five multiples of 6.

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2. Fill in the missing numbers to complete the skip-counting pattern.

4, 8, _____, 16, _____, 24

Write the missing multiples:

.....

.....

3. Is each number a multiple of the given one-digit number? Write **yes** or **no**.

a. 42 is a multiple of 7.	_____
b. 35 is a multiple of 6.	_____
c. 54 is a multiple of 9.	_____

Part B – Prime or Composite?

4. Sort the following numbers into the correct column of the table.

Numbers: 2, 9, 13, 15, 21, 23, 29, 31

Prime	Composite
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.....	
.....	
.....	
.....	

5. Circle the prime numbers from this list: 11, 12, 18, 19, 25

Explain how you knew which numbers to circle:

.....

.....

.....

6. Find all the factor pairs of 24. Use the table below.

First Factor	×	Second Factor	= 24

Is 24 prime or composite?

Why?

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Part C – Mixed Word Problems

7. Pencils come in boxes of 8. Ms. Lee needs exactly 40 pencils. How many boxes should she buy?

Show how multiples helped you decide.

Check: Does your answer make sense? Explain.

8. Maya has 17 stickers. She wants to glue them into a rectangular array with more than one row and more than one column. Explain why this is impossible, and tell whether 17 is prime or composite.

Check: Does your answer make sense? Explain.



Parent/Teacher Tip

Encourage students to use multiplication charts or factor rainbows as support tools. For the prime/composite sorting task, remind students that 1 is neither prime and composite. Pair work is effective for Question 6 – students can check each other's factor pairs before classifying.

Answer Key – Teacher's Copy

Part A – Multiples

1. The first five multiples of 6: 6, 12, 18, 24, 30
2. Completed pattern: 4, 8, 12, 16, 20, 24
3. Multiple checks:
 - a. 42 is a multiple of 7 → **yes** (because $7 \times 6 = 42$)
 - b. 35 is a multiple of 6 → **no** ($6 \times 5 = 30$ and $6 \times 6 = 36$, so 35 is between them)
 - c. 54 is a multiple of 9 → **yes** (because $9 \times 6 = 54$)

Part B – Prime or Composite?

4. Sorted table:
 - Prime: 2, 13, 23, 29, 31
 - Composite: 9, 15, 21
5. Prime numbers circled: 11, 19. Sample explanation: "11 and 19 are prime because they only have two factors – 1 and themselves. 12, 18, and 25 have more than two factors, so they are composite."
6. Factor pairs of 24: 1×24 , 2×12 , 3×8 , 4×6 . **24 is composite** because it has more than two factors (it has factor pairs other than 1×24).

Part C – Mixed Word Problems

7. **5 boxes.** The multiples of 8 are 8, 16, 24, 32, 40. Since 40 is the 5th multiple of 8, Ms. Lee needs 5 boxes. Check: $8 \times 5 = 40$ ✓
8. **17 is prime.** Its only factors are 1 and 17. The only rectangular array possible is 1×17 (one row of 17 or seventeen rows of one). Since Maya wants more than one row AND more than one column, this is impossible. Check: No factor pair of 24 exists where both factors are greater than 1. ✓

Curriculum references for the teacher

These sources informed the content review. A reference does not mean every expectation is covered by this worksheet.

Reference codes: 4.NF, 4.OA

[number and operations—fractions3 – 4.NF](#)

[operations and algebraic thinking – 4.OA](#)

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