

Grade 4 Factors & Multiples

Worksheet Pack

Factors • Multiples • Prime Numbers • Divisibility

Skills Covered

- Finding factors and factor pairs
- Listing and identifying multiples
- Prime and composite numbers
- Common factors and common multiples
- Divisibility rules
- Missing numbers and True/False
- Reasoning and real-life challenges

Name: _____

Date: _____

Teacher / Class: _____

Worksheet 1 • Factors

Grade 4 Mathematics

A. Find the Factors

1. List all factors of 12.
2. List all factors of 18.
3. List all factors of 20.
4. List all factors of 24.
5. List all factors of 30.
6. List all factors of 36.

B. Factor Pairs

1. Write the factor pairs of 16.
2. Write the factor pairs of 28.
3. Write the factor pairs of 32.
4. Write the factor pairs of 40.
5. Write the factor pairs of 45.
6. Write the factor pairs of 50.

Worksheet 2 • Multiples

Grade 4 Mathematics

A. List Multiples

1. Write the first 6 multiples of 4.
2. Write the first 6 multiples of 6.
3. Write the first 6 multiples of 7.
4. Write the first 6 multiples of 8.
5. Write the first 6 multiples of 9.
6. Write the first 6 multiples of 12.

B. Complete the Patterns

1. 5, 10, 15, __, __, __
2. 7, 14, 21, __, __, __
3. 9, 18, 27, __, __, __
4. 12, 24, 36, __, __, __
5. 15, 30, 45, __, __, __
6. 20, 40, 60, __, __, __

Worksheet 3 • Prime & Composite Numbers

Grade 4 Mathematics

A. Identify

1. Is 11 prime or composite?
2. Is 15 prime or composite?
3. Is 17 prime or composite?
4. Is 21 prime or composite?
5. Is 29 prime or composite?
6. Is 35 prime or composite?

B. Sort the Numbers

1. Circle the primes: 8, 13, 18, 23
2. Circle the composites: 7, 12, 19, 24
3. Circle the primes: 14, 17, 25, 31
4. Circle the composites: 9, 11, 16, 27
5. Circle the primes: 20, 29, 33, 37
6. Circle the composites: 5, 10, 13, 30

Worksheet 4 • Common Factors & Multiples

Grade 4 Mathematics

A. Common Factors

1. Find the common factors of 12 and 18.
2. Find the common factors of 16 and 24.
3. Find the common factors of 20 and 30.
4. Find the common factors of 18 and 27.
5. Find the common factors of 24 and 36.
6. Find the common factors of 15 and 25.

B. Common Multiples

1. Write the first 3 common multiples of 2 and 3.
2. Write the first 3 common multiples of 4 and 6.
3. Write the first 3 common multiples of 3 and 5.
4. Write the first 3 common multiples of 5 and 10.
5. Write the first 3 common multiples of 6 and 8.
6. Write the first 3 common multiples of 4 and 9.

Worksheet 5 • Divisibility Rules

Grade 4 Mathematics

A. Use the Rules

Divisible by 2? 246: _____ 315: _____ 728: _____

Divisible by 5? 430: _____ 624: _____ 975: _____

Divisible by 10? 560: _____ 745: _____ 900: _____

Divisible by 3? 126: _____ 215: _____ 333: _____

Divisible by 4? 124: _____ 318: _____ 512: _____

Divisible by 6? 132: _____ 245: _____ 414: _____

B. Choose the Numbers

Which numbers are divisible by 2? 145, 236, 408, 517

Which numbers are divisible by 5? 210, 324, 455, 618

Which numbers are divisible by 10? 120, 235, 700, 815

Which numbers are divisible by 3? 123, 142, 315, 422

Which numbers are divisible by 4? 116, 218, 324, 530

Worksheet 6 • Missing Numbers & True/False

Grade 4 Mathematics

A. Find the Missing Number

1. ■ is a factor of 24 and greater than 5. One answer: _____

2. ■ $\times$ 6 = 42

3. $48 \div$ ■ = 8

4. ■ is a multiple of 7 between 20 and 40.

5. ■ $\times$ 5 = 45

6. $60 \div$ ■ = 10

B. True or False

1. 7 is a factor of 42.

2. 36 is a multiple of 6.

3. 17 is composite.

4. 25 is a multiple of 5.

5. 8 is a factor of 36.

6. 45 is divisible by 9.

Worksheet 7 • Factors & Multiples Challenge

Grade 4 Mathematics

A. Reasoning

1. A number has exactly two factors. What type of number is it? _____
2. Find a number that is a factor of both 24 and 36: _____
3. Find a number that is a multiple of both 4 and 6: _____
4. Is 48 a multiple of 6? Explain. _____
5. Is 31 prime? Explain. _____
6. Write two numbers that have exactly 3 factor pairs: _____

B. Real-Life Problems

1. A teacher has 24 pencils and wants equal groups with no pencils left. What group sizes are possible?

2. A bell rings every 6 minutes and another every 8 minutes. After how many minutes will they ring together?

3. A class has 30 students. What equal group sizes can be made?

Answer Key • Grade 4 Factors & Multiples

Grade 4 Mathematics

Worksheet 1

- | | |
|-------------------------|--------------------------------|
| 1. 1,2,3,4,6,12 | 7. (1,16),(2,8),(4,4) |
| 2. 1,2,3,6,9,18 | 8. (1,28),(2,14),(4,7) |
| 3. 1,2,4,5,10,20 | 9. (1,32),(2,16),(4,8) |
| 4. 1,2,3,4,6,8,12,24 | 10. (1,40),(2,20),(4,10),(5,8) |
| 5. 1,2,3,5,6,10,15,30 | 11. (1,45),(3,15),(5,9) |
| 6. 1,2,3,4,6,9,12,18,36 | 12. (1,50),(2,25),(5,10) |

Worksheet 2

- | | |
|----------------------|----------------|
| 1. 4,8,12,16,20,24 | 7. 20,25,30 |
| 2. 6,12,18,24,30,36 | 8. 28,35,42 |
| 3. 7,14,21,28,35,42 | 9. 36,45,54 |
| 4. 8,16,24,32,40,48 | 10. 48,60,72 |
| 5. 9,18,27,36,45,54 | 11. 60,75,90 |
| 6. 12,24,36,48,60,72 | 12. 80,100,120 |

Worksheet 3

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|--------------|-------------|
| 1. Prime | 7. 13,23 |
| 2. Composite | 8. 12,24 |
| 3. Prime | 9. 17,31 |
| 4. Composite | 10. 9,16,27 |
| 5. Prime | 11. 29,37 |
| 6. Composite | 12. 10,30 |

Worksheet 4

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|-----------------|---------------|
| 1. 1,2,3,6 | 7. 6,12,18 |
| 2. 1,2,4,8 | 8. 12,24,36 |
| 3. 1,2,5,10 | 9. 15,30,45 |
| 4. 1,3,9 | 10. 10,20,30 |
| 5. 1,2,3,4,6,12 | 11. 24,48,72 |
| 6. 1,5 | 12. 36,72,108 |

Worksheet 5

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|-----------------------------|-------------|
| 1. 246 Yes; 315 No; 728 Yes | 7. 236,408 |
| 2. 430 Yes; 624 No; 975 Yes | 8. 210,455 |
| 3. 560 Yes; 745 No; 900 Yes | 9. 120,700 |
| 4. 126 Yes; 215 No; 333 Yes | 10. 123,315 |
| 5. 124 Yes; 318 No; 512 Yes | 11. 116,324 |
| 6. 132 Yes; 245 No; 414 Yes | |

Worksheet 6

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|--------------|-----------|
| 1. 6,8,12,24 | 7. True |
| 2. 7 | 8. True |
| 3. 6 | 9. False |
| 4. 28 or 35 | 10. True |
| 5. 9 | 11. False |
| 6. 6 | 12. True |

Worksheet 7

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|--|------------------------------------|
| 1. Prime | 6. Answers vary |
| 2. 6 (also 1,2,3,4,6,12 possible factors depending on problem) | 7. Group sizes: 1,2,3,4,6,8,12,24 |
| 3. 12 | 8. 24 minutes |
| 4. Yes; $48=6\times 8$ | 9. Group sizes: 1,2,3,5,6,10,15,30 |
| 5. Yes; only factors 1 and 31 | |