

Common factors are numbers that are factors of two different products. The factors 1,2,3, and 6 are common to 12 and 18.

(**①**, 12, **②**, **⑥**, **③**, 4)

### Factors of 12

(**①**, 18, **②**, 9, **③**, **⑥**)

### Factors of 18

**Directions:** Circle the common factors for each pair of numbers.

1. 8 (1, 2, 4, 8)

12 (1, 2, 3, 4, 6, 12)

5. 10 (1, 2, 5, 10)

20 (1, 2, 4, 5, 10, 20)

2. 6 (1, 2, 3, 6)

8 (1, 2, 4, 8)

6. 12 (1, 2, 3, 4, 6, 12)

24 (1, 2, 3, 4, 6, 8, 12, 24)

3. 10 (1, 2, 5, 10)

15 (1, 3, 5, 15)

7. 8 (1, 2, 4, 8)

10 (1, 2, 5, 10)

4. 16 (1, 2, 4, 8, 16)

24 (1, 2, 3, 4, 6, 8, 12, 24)

8. 24 (1, 2, 3, 4, 6, 8, 12, 24)

28 (1, 2, 4, 7, 14, 28)

**Directions:** List the factors for each number in the problems below. Circle the common factors.

9. 6 (1, 2, 3, 6)

10 (\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_)

14. 24

30

10. 9 (\_\_\_\_, \_\_\_\_, \_\_\_\_)

18 (\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_)

15. 32

16

11. 12

16

16. 48

36

12. 7

14

17. 36

18

13. 10

30

18. 18

12

**Directions:** List the factors for each number. Circle the common factors for each set of three numbers.

19. 6 (1, 2, 3, 6)

12 (\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_)

18 (\_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_, \_\_\_\_)

21. 10

15

25

20. 9

12

24

22. 16

24

36

A *multiple* is the product of two factors.

A *common multiple* is a number that is a product of the same factor as another number.

To find the multiples of a number, multiply that number by 1, then 2, then 3, etc.

Here are the first six multiples of 4 and 6.

**4 (4, 8, 12, 16, 20, 24)**

**6 (6, 12, 18, 24, 30, 36)**

The numbers 12 and 24 are common multiples of both 4 and 6.

**Directions:** Find and circle the common multiples of the pairs of factors named below.

- |  |                       |
|--|-----------------------|
| 1. 3 (3, 6, 9, 12, 15, 18)                     | 4. 6 (6, 12, 18, 24)  |
| 2 (2, 4, 6, 8, 10, 12, 14, 16, 18)             | 8 (8, 16, 24)         |
| 2. 4 (4, 8, 12, 16, 20, 24)                    | 5. 9 (9, 18, 27, 36)  |
| 2 (2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24) | 6 (6, 12, 18, 24, 36) |
| 3. 9 (9, 18, 27, 36)                           | 6. 12 (12, 24, 36)    |
| 4 (4, 8, 12, 16, 20, 24, 28, 32, 36)           | 9 (9, 18, 27, 36)     |

**Directions:** List the first six multiples for each of the sets of numbers named below. Circle the common multiples.

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|--|--|
| 7. 9 (9, 18, 27, 36, 45, 54)               | 9. 10 (____, ____, ____, ____, ____, ____) |
| 3 (____, ____, ____, ____, ____, ____)     | 5 (____, ____, ____, ____, ____, ____)     |
| 8. 12 (____, ____, ____, ____, ____, ____) | 10. 3 (____, ____, ____, ____, ____, ____) |
| 10 (____, ____, ____, ____, ____, ____)    | 12 (____, ____, ____, ____, ____, ____)    |