

# Factors and Factor Pairs

Name: \_\_\_\_\_

Grade 4 · Find all the factor pairs of a number up to 100

## How it works

A **factor** of a number divides it with nothing left over. Factors come in **pairs** that multiply to make the number.

To find them all, try 1, then 2, then 3, and keep going. Stop when the pairs start to repeat.

A number can pair with itself:  $4 \times 4 = 16$ . List that factor once.

### Factor pairs of 12

$1 \times 12$      $2 \times 6$      $3 \times 4$

### Factors of 12

1, 2, 3, 4, 6, 12

## A. Write every factor pair. Then list all the factors from least to greatest.

1.

18     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$

Factors: \_\_\_\_\_

2.

30     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$   
 $\underline{\quad} \times \underline{\quad}$

Factors: \_\_\_\_\_

3.

16     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$

Factors: \_\_\_\_\_

4.

42     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$   
 $\underline{\quad} \times \underline{\quad}$

Factors: \_\_\_\_\_

5.

27     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$

Factors: \_\_\_\_\_

6.

36     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$   
 $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$

Factors: \_\_\_\_\_

7.

40     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$   
 $\underline{\quad} \times \underline{\quad}$

Factors: \_\_\_\_\_

8.

49     $\underline{\quad} \times \underline{\quad} \underline{\quad} \times \underline{\quad} \underline{\quad}$

Factors: \_\_\_\_\_

## B. True or false? Circle one.

6 is a factor of 54.

☐ true

☐ false

8 is a factor of 60.

☐ true

☐ false

7 is a factor of 91.

☐ true

☐ false

# Factors and Factor Pairs (Answer Key)

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## How it works

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## Factor pairs of 12

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## Factors of 12

1, 2, 3, 4, 6, 12

## A. Write every factor pair. Then list all the factors from least to greatest.

1.

**18**    1  $\times$  18    2  $\times$  9    3  $\times$  6

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

2.

**30**    1  $\times$  30    2  $\times$  15    3  $\times$  10  
5  $\times$  6

Factors: 1, 2, 3, 5, 6, 10, 15, 30

3.

**16**    1  $\times$  16    2  $\times$  8    4  $\times$  4

Factors: 1, 2, 4, 8, 16

4.

**42**    1  $\times$  42    2  $\times$  21    3  $\times$  14  
6  $\times$  7

Factors: 1, 2, 3, 6, 7, 14, 21, 42

5.

**27**    1  $\times$  27    3  $\times$  9

Factors: 1, 3, 9, 27

6.

**36**    1  $\times$  36    2  $\times$  18    3  $\times$  12  
4  $\times$  9    6  $\times$  6

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

7.

**40**    1  $\times$  40    2  $\times$  20    4  $\times$  10  
5  $\times$  8

Factors: 1, 2, 4, 5, 8, 10, 20, 40

8.

**49**    1  $\times$  49    7  $\times$  7

Factors: 1, 7, 49

## B. True or false? Circle one.

6 is a factor of 54.

☒ true

☐ false

8 is a factor of 60.

☐ true

☒ false

7 is a factor of 91.

☒ true

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