UNIT 1 · STANDARD 6.NS.4

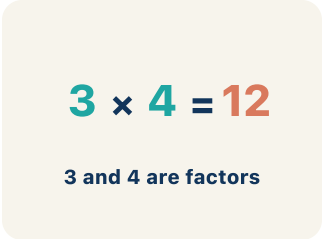
Greatest Common Factor

Lesson 1-2

Name: Type your name **Date:** Today's date **Class:** Class period

Key Vocabulary Level 2 Standard

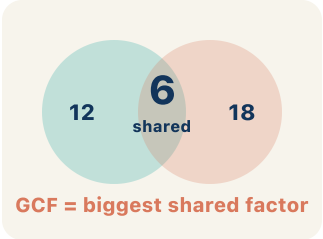
Picture first, then the word, then a plain-language meaning. Say each word out loud.



Factors of 12: 1, 2, 3, 4, 6, 12 — each divides 12 with no remainder

Factor

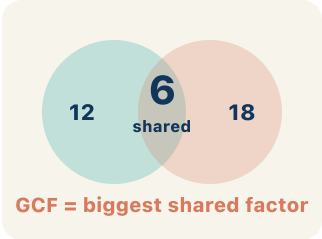
Write the definition:



Factors of 12: {1, 2, 3, 4, 6, 12}. Factors of 18: {1, 2, 3, 6, 9, 18}. Shared: 1, 2, 3, 6. GCF = 6

Greatest Common Factor

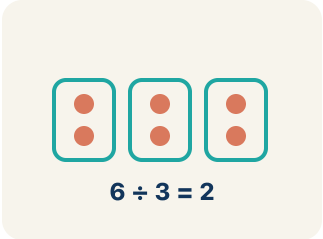
Write the definition:



8 and 12 both divide evenly by 1, 2, and 4 — those are their common factors

Common factor

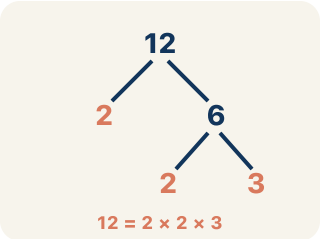
Write the definition:



15 ÷ 3 = 5 with no remainder, so 15 is divisible by 3

Divisible

Write the definition:



12 = 2 × 2 × 3 and 18 = 2 × 3 × 3. Shared primes: 2 × 3 = 6 = GCF

Prime factorization

Write the definition:

Guided Notes Level 2 Standard

🎯 **WHAT WE'RE LEARNING TODAY**

I can find the greatest common factor (GCF) of two numbers by listing or comparing their factors.

✏️ **Fill in each blank as we go. Use the Word Bank to help you.**

📚 **WORD BANK — FILL EACH BLANK WITH THE BEST WORD**

Factor | Greatest Common Factor | Common factor | Divisible | Prime factorization

☝️ *Tap any word to see what it means and a picture.*

1. A number that divides evenly into another number with no remainder is a _____.

2. _____ — The biggest number that divides two or more numbers evenly.

3. A factor that two or more numbers share is a _____ factor.

4. A number that can be divided by another with no remainder is _____ by that number.

5. _____ — Writing a number as prime numbers multiplied together. It helps you find the GCF.

🧱 Watch & Try — Worked Examples

See the notes in action: watch one worked all the way through, then try the next with the same steps.

👀 I do — watch

Follow each step as your teacher solves it.

Problem: What is the GCF of 8 and 12?

A. 4

B. 2

C. 8

D. 24

Step 1 Factors of 8: 1, 2, 4, 8.

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

Step 3 The largest common factor is 4.

✅ **Answer:** A. 4

🧩 Try — put the steps in order

Drag the cards (or use the ▲▼ buttons) to put the solution steps in the right order, then press **Check**.

Factors of 8: 1, 2, 4, 8.

The largest common factor is 4.

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

🤝 **We do — together**

Solve this one with your class using the same steps.

Problem: Which pair of numbers has a GCF of 5?

A. 15 and 25

B. 10 and 12

C. 6 and 15

D. 8 and 20

Step 1 _____

Step 2 _____

Step 3 _____

Answer: _____

✏️ **You do — your turn**

Now try one on your own. Show every step.

Problem: What is the GCF of 14 and 21?

A. 7

B. 14

C. 3

D. 1

Show your work:

Try It

Solve on your own. Check the answer key when you are done.

1. Mission Control must split 24 oxygen tanks and 36 ration packs into identical crew pods with none left over. What is the GCF of 24 and 36?

A. 12

B. 6

C. 8

D. 72

Show your work:

2. The astronaut crew has 40 solar cells and 60 battery cells to load into matching storage bins with nothing left over. What is the GCF of 40 and 60?

A. 20

B. 10

C. 4

D. 120

Show your work:

Stretch Your Thinking

Level 2 enrichment

Challenge task — explain your reasoning in full sentences.

A farmer has 48 apples and 32 oranges. She wants to make gift baskets where every basket has the same number of apples and the same number of oranges, with none left over. Find the greatest number of baskets and explain how you used GCF to solve this.

Sentence starter: The GCF of 48 and 32 is ____ because ____. So the farmer can make ____ baskets, each with ____ apples and ____ oranges.

Show your work:

Reflect — Exit Ticket

What is the GCF of 18 and 27?

A. 9

B. 3

C. 6

D. 18

Your answer: