

## Understanding Fractions

A fraction names a part of a whole. The top number (numerator) is how many pieces you have. The bottom number (denominator) is how many equal pieces the whole was split into.


Part of a fraction	What it tells you
Numerator (top)	How many parts we are talking about
Denominator (bottom)	How many equal parts make a whole
Unit fraction	A fraction with 1 on top: $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \dots$

### Key Concepts

1. A **fraction** is one or more equal parts of a whole. The whole must be split into pieces of the *same size* for a fraction to make sense.
2. The bottom number (**denominator**) tells you the total number of equal parts. The top number (**numerator**) tells you how many of those parts you are counting.
3. A **unit fraction** has a numerator of 1 — it represents exactly one of the equal parts:  $\frac{1}{4}$  is one of 4 equal pieces.
4. When the numerator equals the denominator (like  $\frac{4}{4}$ ), you have the whole thing — all of the equal pieces put together.


### Worked Examples

① A rectangle is divided into 6 equal parts and 5 are shaded. What fraction is shaded?

 Numerator = shaded parts = 5. Denominator = total equal parts = 6. So the shaded fraction is  $\frac{5}{6}$ . Read it as “five sixths.”


 **Answer:**  $\frac{5}{6}$

② Name the fraction for 2 out of 8 equal slices of a pizza.

 Numerator = 2 (the slices we are talking about). Denominator = 8 (the total equal slices the pizza was cut into). The fraction is  $\frac{2}{8}$ . Read it “two eighths.”

 **Answer:**  $\frac{2}{8}$

③ What unit fraction does each piece represent when a pie is cut into 3 equal slices?

 “Unit” fraction means we are talking about a single piece. The pie is split into 3 equal slices, so the denominator is 3. One slice is the unit, so the numerator is 1. The unit fraction is  $\frac{1}{3}$ .

 **Answer:**  $\frac{1}{3}$

### Practice Problems

Write each fraction.

- |  |   |
|--|---|
| 1. 3 out of 4 equal parts _____            | _____                                       |
| 2. 1 out of 6 equal parts _____            | 8. Numerator = 1, denominator = 2<br>_____  |
| 3. 5 out of 8 equal parts _____            | 9. Unit fraction of 4 equal parts _____     |
| 4. 2 out of 3 equal parts _____            | 10. Unit fraction of 8 equal parts _____    |
| 5. 4 out of 4 equal parts (whole) _____    | 11. 6 out of 6 equal parts _____            |
| 6. 7 out of 8 equal parts _____            | 12. Numerator = 5, denominator = 6<br>_____ |
| 7. Numerator = 3, denominator = 6<br>_____ |   |

### Study Tips

- 👉 The whole must be cut into *equal* parts. Three unequal pieces don't make thirds!
- 👉 “Unit fraction” just means a fraction with 1 on top. Every fraction can be thought of as a count of unit fractions:  $\frac{3}{4} = 3$  copies of  $\frac{1}{4}$ .
- 👉 When numerator = denominator, you have a whole.  $\frac{6}{6} = 1$ .

### Word Problems

1. A cake is cut into 8 equal slices. Mia eats 3 slices. What fraction of the cake did she eat?  
Answer: \_\_\_\_\_
2. A garden has 6 equal sections. If 4 sections have flowers, what fraction of the garden has flowers?  
Answer: \_\_\_\_\_

**Answer Key — with Friendly Explanations****Practice Problems**

1. Numerator 3, denominator 4.

 **Answer:**  $\frac{3}{4}$

2. Numerator 1, denominator 6.

 **Answer:**  $\frac{1}{6}$

3. Numerator 5, denominator 8.

 **Answer:**  $\frac{5}{8}$

4. Numerator 2, denominator 3.

 **Answer:**  $\frac{2}{3}$

5. When numerator = denominator, you have the whole (= 1).

 **Answer:**  $\frac{4}{4}$  (one whole)

6. Numerator 7, denominator 8.

 **Answer:**  $\frac{7}{8}$

7. Numerator 3, denominator 6.

 **Answer:**  $\frac{3}{6}$

8. Numerator 1, denominator 2.

 **Answer:**  $\frac{1}{2}$

9. Unit fraction has 1 on top; denominator 4.

 **Answer:**  $\frac{1}{4}$

10. Unit fraction with denominator 8.

 **Answer:**  $\frac{1}{8}$

11. All 6 parts together is one whole.

 **Answer:**  $\frac{6}{6}$  (one whole)

12. Numerator 5, denominator 6.

 **Answer:**  $\frac{5}{6}$

**Word Problems**

1. 3 slices eaten out of 8 equal slices:  $\frac{3}{8}$ .

 **Answer:**  $\frac{3}{8}$

2. 4 flower sections out of 6 equal sections:  $\frac{4}{6}$ .

 **Answer:**  $\frac{4}{6}$

# Want a Complete Grade 3 Math Program?

## Check Out Our North Dakota NDSA Grade 3 Math Bundle!



### North Dakota NDSA Grade 3 Math Bundle

Practice tests, complete answer keys, and step-by-step explanations  
Everything a third grader needs to feel ready!

Tests +  
Answer Keys  
One Bundle

Find it online:

<https://www.effortlessmath.com/product/north-dakota-ndsa-grade-3-math-made-ridiculously-simple/>

**Important:** This bundle combines the practice and the explanations into one easy-to-print package designed for Grade 3 students. **Made for parents, teachers, and tutors who want everything in one place.**

#### Full Practice Tests

- ✓ Complete NDSA-style practice tests
- ✓ Mirrors the real exam format and difficulty
- ✓ Builds test-taking confidence
- ✓ Aligned with state Grade 3 math standards

**Start with a full-length practice test!**

#### Step-by-Step Answer Keys

- ✓ Every question worked out, not just an answer
- ✓ Friendly, third-grade-ready explanations
- ✓ Catches and explains common misconceptions
- ✓ Parents can help even without a math background

**Learn from every mistake!**

#### Single-Skill Worksheets

- ✓ Targets one Grade 3 math skill per page
- ✓ Covers place value, multiplication, fractions, measurement, geometry
- ✓ Includes a Quick Review + Practice + Word Problems
- ✓ Built-in friendly Answer Key for self-checking

**Master one skill at a time!**