



Fraction Explorers: Understanding Equal Parts

What do you already know about fractions?

Lesson Objective

At the end of the lesson you will be able to show and explain fractions, compare simple fractions, and connect fractions to real-life situations using correct math words.

What is a Fraction?

A fraction is a way to show equal parts of a whole. We use fractions to talk about pieces like half, third, or quarter.



Parts of a Fraction

A fraction has a top number (numerator) and a bottom number (denominator). The numerator tells how many parts we have, and the denominator tells how many equal parts the whole is split into.

Common Fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$

Let's look at what halves, thirds, and quarters look like. We can use pictures or math tools to help us see them.

Fractions on a Number Line

We can also show fractions on a number line. Each mark between 0 and 1 shows a fraction. This helps us see how fractions compare to each other.

$$a. 14n^4 \div 7n^2 = 2n^2$$

$$b. 24a^5 \div 3a^4 = 6a$$

$$c. 25c^8 \div 5c^3 = 5c^5$$

$$d. 42g^9 \div 6g^2 = 7g^7$$

$$e. 84n^{18} \div 12n^6 = 7n^{12}$$

$$f. 56b^6 \div 7b^3 = 8b^3$$

$$g. 16a^2d^5 \div 2a^2d^3 = 8d^2$$

$$h. 36f^6k^6 \div 3f^4k^5 = 12f^2k$$

$$i. 66p^8q^{12} \div 6p^5q^9 = 11p^3q^3$$

$$j. 48r^{33}t^3 \div 6r^{16}t^8 = 8r^{17}t^{-5}$$

$$\frac{a \times a}{a \times a}$$

$$\frac{48r^{33}t^3}{6r^{16}t^8}$$

$$8r^{17}t^{-5}$$

$$8r^{17}t^{-5}$$

$$\frac{8r^{17}}{t^5}$$

$$3a + 4a$$

$$a + a + a + a + a + a + a$$

$$7a$$

$$3a^1 \times 4a^1$$

$$12a^2$$

$$3a^3 \times 4a^1$$

$$12a^4$$

$$12a^5 \div 6a^3$$

$$2a^2$$

$$1. 9b + 3b = 12b$$

$$2. -4d + 6d = 2d$$

$$7. 9t^2v^3 \times 5t^3v^5 = 45t^5v^8$$

$$8. 100w^4 \div 10w^2 = 10w^2$$

Comparing Simple Fractions

Visual Models

Use fraction circles or bars to compare $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$.

Which is Bigger?

Notice: $\frac{1}{2}$ is bigger than $\frac{1}{3}$, and $\frac{1}{3}$ is bigger than $\frac{1}{4}$.

Fractions in Real Life

You see fractions when you share a pizza, cut a sandwich, or measure ingredients for a recipe. Fractions help us divide things fairly!

Let's Practice!

Work with a partner to show $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ using blocks, draw your own shapes, or find fractions on a number line. Be ready to share your ideas using math vocabulary!

Reflection

How can knowing about fractions help you in real life? What's one thing you learned about fractions today?

Write down 3 things you learned in this lesson.

A large white rounded rectangular box with a thin grey border, intended for students to write their answers to the prompt above. The box is empty and occupies the majority of the page's lower half.

Write down 2 things you want to know more about.

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Ask 1 question about something you haven't quite understood yet.

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