Fraction Pizza Shop

4th Grade Math Project · Food & Business

Grade 4 · Advanced

Name: _____ Date: _____ Class: _____

The Challenge

Welcome to your own pizza shop! Customers order pizza by the fraction, and you must make sure every order is fair.

You will make: Pizza Shop Menu Board

What you will learn

- Explain why two fractions are equivalent using models.
- Generate equivalent fractions and write fractions in simplest form.
- Compare fractions with different numerators and denominators.
- Use the benchmark $\frac{1}{2}$ to compare.

Materials

- Paper circles or fraction circles
- Ruler
- Markers
- Poster paper

How to do it

1. Part 1: Slice It Smaller
2. Part 2: Which Order Is Bigger?
3. Part 3: Order the Orders
4. Part 4: Menu Board
5. Check your work and share your pizza shop menu board.

Part 1: Slice It Smaller

A customer orders $\frac{3}{4}$ of a pizza. The pizza is then cut so that each slice becomes 3 smaller slices.

1. Draw the pizza before and after the extra cuts.

2. Write the equivalent fraction. Show the multiplication.

3. Did the customer get more pizza, less pizza, or the same amount? Explain.

Part 2: Which Order Is Bigger?

Table A orders $\frac{5}{6}$ of a pizza. Table B orders $\frac{7}{8}$ of a pizza. The pizzas are the same size.

4. Compare the two fractions. Write >, < or =.

5. Explain how you compared them.

6. Why must the pizzas be the same size to compare?

Part 3: Order the Orders

Four tables each ordered part of a pizza.

Table	Table 1	Table 2	Table 3	Table 4
Order	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{7}{12}$	$\frac{5}{6}$

7. List the orders from least to greatest.

8. Which tables ordered more than $\frac{1}{2}$ of a pizza?

9. Which benchmark helped you most: 0, $\frac{1}{2}$ or 1?

Part 4: Menu Board

The menu shows fractions in simplest form. One special is $\frac{9}{12}$ of a pizza.

10. Write $\frac{9}{12}$ in simplest form.

11. Write two more fractions equivalent to it.

12. Design your menu board with at least 4 fraction specials and a model for each.

⭐ Extension Challenge

Without finding common denominators, decide which is greater: $\frac{7}{8}$ or $\frac{9}{10}$. Explain your reasoning.

How your project will be scored

Category	4 Excellent	3 Good	2 Developing	1 Beginning
Math accuracy	All answers correct	Most answers correct	Some answers correct	Few answers correct
Shows work	Clear work for every step	Work for most steps	Some work shown	Little work shown
Explains thinking	Clear, complete explanations	Mostly clear explanations	Some explanation	Little explanation
Final product	Complete, neat and creative	Complete and neat	Partly complete	Not complete