

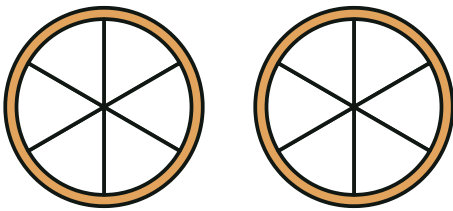
CEDAR HOLLOW SLICE SHOP • LEVEL 3: CHALLENGE

Slice Shop: Big Orders, Compare, Add, and Take Away

Compare with a benchmark (like $\frac{1}{2}$) or a common denominator. Add or take away only when the denominators match. Write amounts greater than 1 as mixed numbers, like $\frac{5}{4} = 1\frac{1}{4}$.

Part 1: Big orders

- 1 Coach Ruiz needs $1\frac{3}{6}$ pies. The same-size pies are cut into 6 slices each. Serve _____ whole pie and _____ more slices. That is _____ slices in all.



- 2 Mr. Abara wants $1\frac{1}{2}$ apple pies. The pies are cut into 4 slices each. How many slices do you serve?

A. 3

B. 5

C. 8

D. 6

Part 2: Compare

- 3 Write $>$, $<$, or $=$ in each blank: $\frac{3}{8}$ _____ $\frac{3}{5}$, $\frac{5}{6}$ _____ $\frac{10}{12}$, $\frac{7}{10}$ _____ $\frac{1}{2}$, $\frac{2}{3}$ _____ $\frac{3}{4}$.

- 4 Nadia ordered $\frac{5}{8}$ of a pie. Theo ordered $\frac{2}{5}$ of a same-size pie. Who gets the bigger box?

A. Theo

B. Nadia

C. Same size boxes

- 5 Rosa says $\frac{4}{6}$ of a pie is more than $\frac{4}{5}$ of a same-size pie, because 6 is greater than 5. Is Rosa right? Explain.

Part 3: Add and take away

- 6 Mr. Abara boxed up $\frac{3}{4}$ of one pumpkin pie and $\frac{3}{4}$ of another same-size pumpkin pie. How much pie is in the box?

A. $\frac{6}{8}$ of a pie B. $\frac{3}{4}$ of a pie C. $1\frac{2}{4}$ pies D. $1\frac{1}{4}$ pies

- 7 Ms. Park's box: $\frac{5}{6} + \frac{4}{6} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ (write the sum as a fraction, then as a mixed number).

- 8 Match each box to the amount it holds. One choice is extra.

Write the letter of the match on each line.

_____ $\frac{4}{5} + \frac{3}{5}$

A. $1\frac{2}{5}$

_____ $\frac{5}{6} + \frac{1}{6}$

B. $1\frac{3}{8}$

_____ $\frac{7}{8} + \frac{3}{8}$

C. 1 whole

D. $1\frac{2}{8}$

- 9 A cherry pie was cut into 8 slices, and $\frac{7}{8}$ of it is left. Ms. Park buys $\frac{3}{8}$ of the pie. How much is left? $\frac{7}{8} - \frac{3}{8} = \underline{\hspace{2cm}}$

- 10 Lena bought $\frac{2}{8}$ of an apple pie and $\frac{3}{8}$ of the same pie. Jun says she bought more than half of the pie. Is Jun right? Show your work.

Answer Key

Slice Shop: Big Orders, Compare, Add, and Take Away

Part 1: Big orders

- 1 Coach Ruiz needs $1\frac{3}{6}$ pies. The same-size pies are cut into 6 slices each. Serve ____ whole pie and ____ more slices. That is ____ slices in all.

Coach Ruiz needs $1\frac{3}{6}$ pies. The same-size pies are cut into 6 slices each. Serve 1 whole pie and 3 more slices. That is 9 slices in all.

1 whole pie is 6 slices, and $6 + 3 = 9$ slices. So $1\frac{3}{6} = \frac{9}{6}$.

- 2 Mr. Abara wants $1\frac{1}{2}$ apple pies. The pies are cut into 4 slices each. How many slices do you serve?

D. 6

$1\frac{1}{2} = 1\frac{2}{4}$. 1 whole pie is 4 slices, plus 2 more slices: $4 + 2 = 6$ slices.

Part 2: Compare

- 3 Write >, <, or = in each blank: $\frac{3}{8}$ ____ $\frac{3}{5}$, $\frac{5}{6}$ ____ $\frac{10}{12}$, $\frac{7}{10}$ ____ $\frac{1}{2}$, $\frac{2}{3}$ ____ $\frac{3}{4}$.

Write >, <, or = in each blank: $\frac{3}{8} \leq \frac{3}{5}$, $\frac{5}{6} = \frac{10}{12}$, $\frac{7}{10} \geq \frac{1}{2}$, $\frac{2}{3} \leq \frac{3}{4}$.

Same numerator: eighths are smaller than fifths. $\frac{5}{6} = \frac{10}{12}$. $\frac{7}{10}$ is more than $\frac{5}{10}$. $\frac{2}{3} = \frac{8}{12}$ and $\frac{3}{4} = \frac{9}{12}$.

- 4 Nadia ordered $\frac{5}{8}$ of a pie. Theo ordered $\frac{2}{5}$ of a same-size pie. Who gets the bigger box?

B. Nadia

$\frac{5}{8}$ is more than $\frac{4}{8}$, which is $\frac{1}{2}$. $\frac{2}{5} = \frac{4}{10}$, which is less than $\frac{5}{10}$, which is $\frac{1}{2}$. So Nadia ordered more pie.

- 5 Rosa says $\frac{4}{6}$ of a pie is more than $\frac{4}{5}$ of a same-size pie, because 6 is greater than 5. Is Rosa right? Explain.

Sample answer: No. Both orders have 4 slices, but sixths are smaller slices than fifths, so $\frac{4}{6} < \frac{4}{5}$.

Part 3: Add and take away

- 6 Mr. Abara boxed up $\frac{3}{4}$ of one pumpkin pie and $\frac{3}{4}$ of another same-size pumpkin pie. How much pie is in the box?

C. $1\frac{2}{4}$ pies

$\frac{3}{4} + \frac{3}{4} = \frac{6}{4}$. Since $\frac{4}{4}$ is 1 whole pie, $\frac{6}{4} = 1\frac{2}{4}$ pies. Also correct: $1\frac{1}{2}$ pies (the same amount in simplest form). $\frac{6}{8}$ comes from adding the denominators too, which is not correct.

- 7 Ms. Park's box: $\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = 1\frac{3}{6}$ (write the sum as a fraction, then as a mixed number).

Ms. Park's box: $\frac{5}{6} + \frac{4}{6} = \frac{9}{6} = 1\frac{3}{6}$ (write the sum as a fraction, then as a mixed number).

Add the top numbers and keep the sixths. $\frac{6}{6}$ is 1 whole pie, so $\frac{9}{6} = 1\frac{3}{6}$. Also correct for the mixed number: $1\frac{1}{2}$ (the same amount in simplest form).

- 8 Match each box to the amount it holds. One choice is extra.

$\frac{4}{5} + \frac{3}{5}$: **A. $1\frac{2}{5}$**

$\frac{5}{6} + \frac{1}{6}$: **C. 1 whole**

$\frac{7}{8} + \frac{3}{8}$: **D. $1\frac{2}{8}$**

$\frac{4}{5} + \frac{3}{5} = \frac{7}{5} = 1\frac{2}{5}$. $\frac{5}{6} + \frac{1}{6} = \frac{6}{6} = 1$ whole. $\frac{7}{8} + \frac{3}{8} = \frac{10}{8} = 1\frac{2}{8}$ (also correct in simplest form: $1\frac{1}{4}$). $1\frac{3}{8}$ is the extra choice.

- 9 A cherry pie was cut into 8 slices, and $\frac{7}{8}$ of it is left. Ms. Park buys $\frac{3}{8}$ of the pie. How much is left? $\frac{7}{8} - \frac{3}{8} = \underline{\hspace{1cm}}$

A cherry pie was cut into 8 slices, and $\frac{7}{8}$ of it is left. Ms. Park buys $\frac{3}{8}$ of the pie. How much is left? $\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$

Take away the top numbers and keep the eighths. Also correct: $\frac{1}{2}$ (the same amount in simplest form).

- 10 Lena bought $\frac{2}{8}$ of an apple pie and $\frac{3}{8}$ of the same pie. Jun says she bought more than half of the pie. Is Jun right? Show your work.

Sample answer: Yes. $\frac{2}{8} + \frac{3}{8} = \frac{5}{8}$. Half of the pie is $\frac{4}{8}$, and $\frac{5}{8} > \frac{4}{8}$, so Lena bought more than half of the pie.