Name _____ Date _____

Adding fractions

Adding fractions with the same bottom number, within one whole.

1 Learn



When the bottom numbers are the same, add the **top** numbers. The bottom number stays the same, because the parts are still the same size.



Worked example: $\frac{3}{8} + \frac{4}{8}$



1. Check the bottom numbers are the same: 8 and 8.
2. Add the top numbers: 3 + 4 = **7**.
3. Keep the bottom number: **8**.
4. So $\frac{3}{8} + \frac{4}{8} = \frac{7}{8}$: seven eighths.

Flip's tip: it's like counting things: 2 fifths + 1 fifth = 3 fifths, just as 2 apples + 1 apple = 3 apples.

Warm up: add these.

$\frac{1}{4} + \frac{2}{4} = \frac{\square}{\square}$ $\quad \frac{1}{3} + \frac{1}{3} = \frac{\square}{\square}$ $\quad \frac{2}{6} + \frac{3}{6} = \frac{\square}{\square}$

Grown-ups: say the fractions in words: "two fifths plus one fifth". Hearing "fifths" each time helps children see that the bottom number doesn't change.

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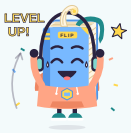
2 Try it together a child and a grown-up, about 10 minutes



Fill the box

You need: an empty egg box (or 6 circles drawn on paper), and two kinds of small things, like pasta and buttons.

1. The egg box is one whole. How many cups? That's the bottom number.
2. Put pasta in 2 cups ($\frac{2}{6}$) and buttons in 3 more cups ($\frac{3}{6}$).
3. How many cups are full altogether? Say the adding sentence: $\frac{2}{6} + \frac{3}{6} = \frac{5}{6}$.
4. Empty the box, try other amounts, and record them.

Pasta	Buttons	Full altogether	Adding sentence

Grown-ups: keep the total within the box (6 cups or fewer). If you have a 12-cup egg box, use twelfths, like $\frac{5}{12} + \frac{4}{12}$.

3 Practise

A. Write the adding sentence for each bar. Yellow is the first fraction, blue is the second.



$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$



$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$



$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$



$\frac{\square}{\square} + \frac{\square}{\square} = \frac{\square}{\square}$

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B. Add these.

$\frac{3}{7} + \frac{2}{7} = \frac{\square}{\square}$ $\quad \frac{1}{10} + \frac{6}{10} = \frac{\square}{\square}$ $\quad \frac{4}{9} + \frac{4}{9} = \frac{\square}{\square}$

$\frac{2}{8} + \frac{5}{8} = \frac{\square}{\square}$ $\quad \frac{1}{6} + \frac{4}{6} = \frac{\square}{\square}$ $\quad \frac{3}{5} + \frac{1}{5} = \frac{\square}{\square}$

C. Fill in the missing number.

$\frac{2}{5} + \frac{\square}{5} = \frac{4}{5}$ $\quad \frac{\square}{8} + \frac{3}{8} = \frac{7}{8}$ $\quad \frac{1}{4} + \frac{\square}{4} = 1 \text{ whole}$

D. Solve these.

1. A pizza is cut into 8 equal slices. Mia eats $\frac{2}{8}$ and Leo eats $\frac{3}{8}$. How much do they eat altogether?

_____

2. A cake is cut into 6 equal slices. Sam has 1 slice and Ava has 2 slices. What fraction of the cake did they have?

_____

Challenge

Leo writes $\frac{1}{5} + \frac{2}{5} = \frac{3}{10}$. Is he right? Draw a bar to help you explain.

_____

_____

_____

I can... Tick when you can.

- ☐ add fractions with the same bottom number
- ☐ keep the bottom number the same
- ☐ use a picture to check my answer