

Year 4 Week 10 Lesson 5

Can I add and subtract fractions with the same denominator?

Fast Five

- $7579 + 7485 =$

- $240 \div 80 =$

- $365 \times 3 =$

- $361 \div 4 =$

- $4574 - 1429 =$

Fast Five Answers

- $7579 + 7485 = 15064$

- $240 \div 80 = 3$

- $365 \times 3 = 1095$

- $361 \div 4 = 90 \text{ r}1$

- $4574 - 1429 = 3145$



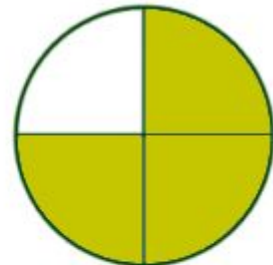
1



$\frac{1}{2}$



$\frac{1}{4}$



$\frac{3}{4}$



1



$\frac{2}{3}$



$\frac{1}{3}$

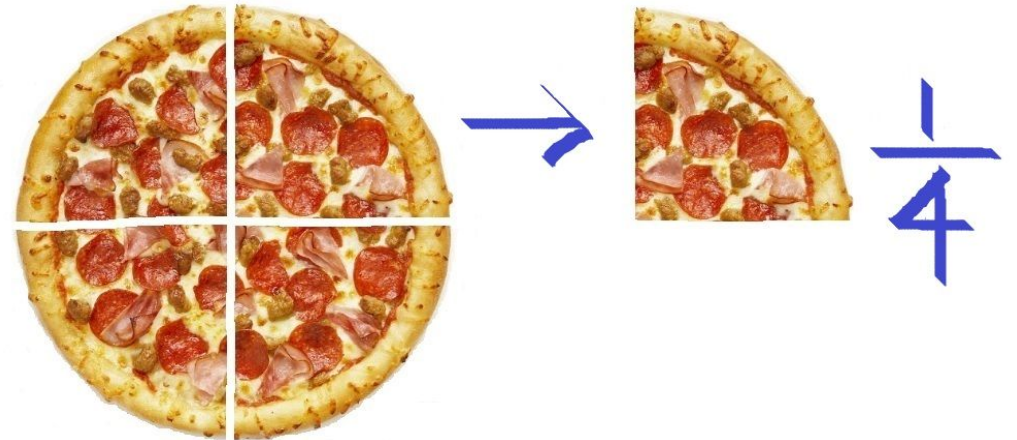
Fractions have two parts

1

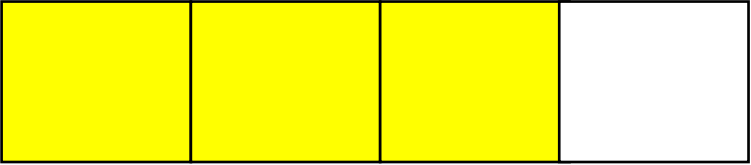
The top number is the **numerator**. This number tells us how many equal parts of the whole have been taken.

4

The bottom number is the **denominator**. This number tells us how many equal parts the whole is split into.



These are all different ways of showing $\frac{3}{4}$.



$$\frac{3}{4}$$

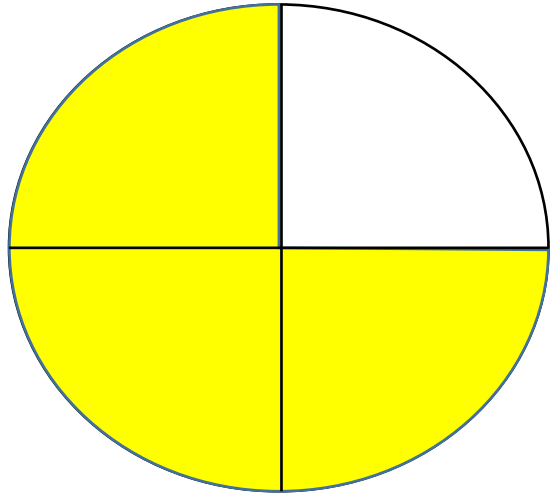
Numerator (number of parts shaded)

3

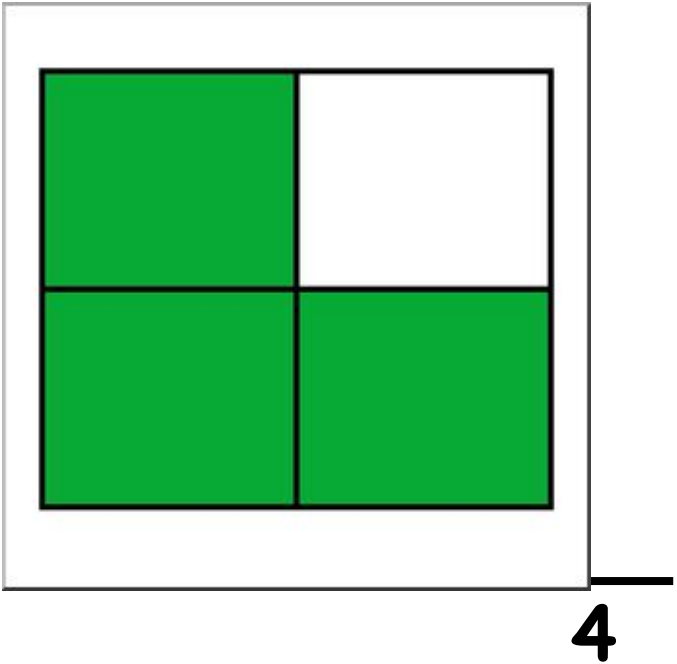


4

Denominator (4 parts)



$$\frac{3}{4}$$

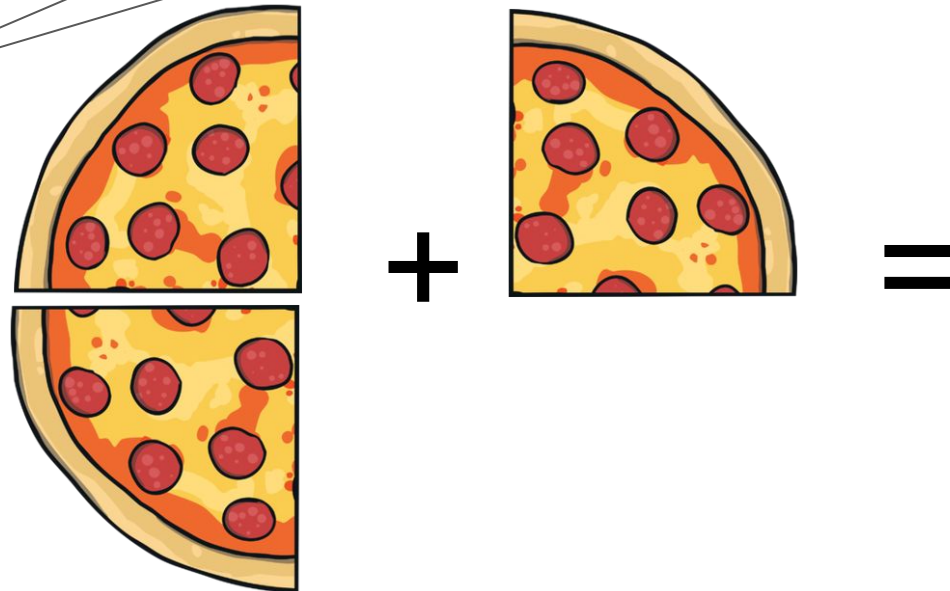


Adding fractions with the same denominator

$$\underline{2} + \underline{1} =$$

$$4 \quad 4 \quad 4$$

If the denominator is the same in both fractions, then it stays the same in the answer.

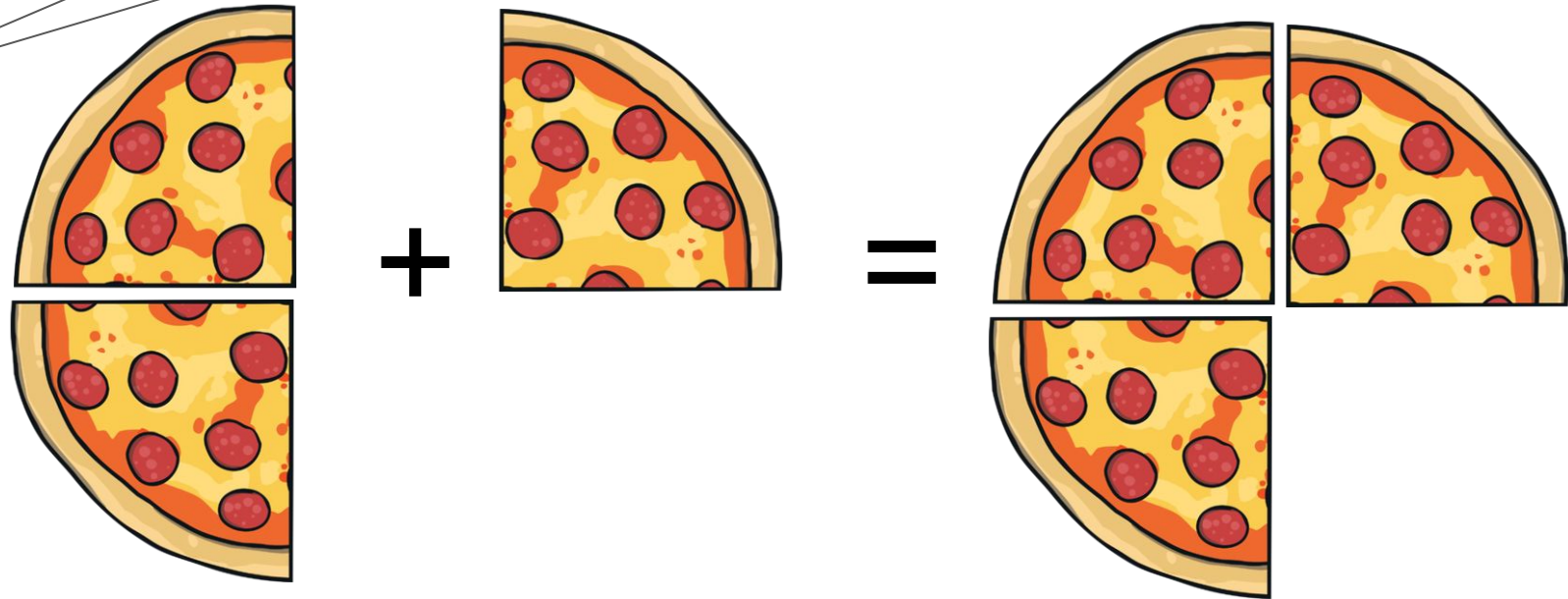


Adding Fractions with the same denominator

You then just add the numerators as you would normally.

$$\frac{2}{4} + \frac{1}{4} = \frac{3}{4}$$

If the denominator is the same in both fractions, then it stays the same in the answer.



$$\frac{1}{5} + \frac{2}{5} = \frac{1+2}{5} = \frac{3}{5}$$

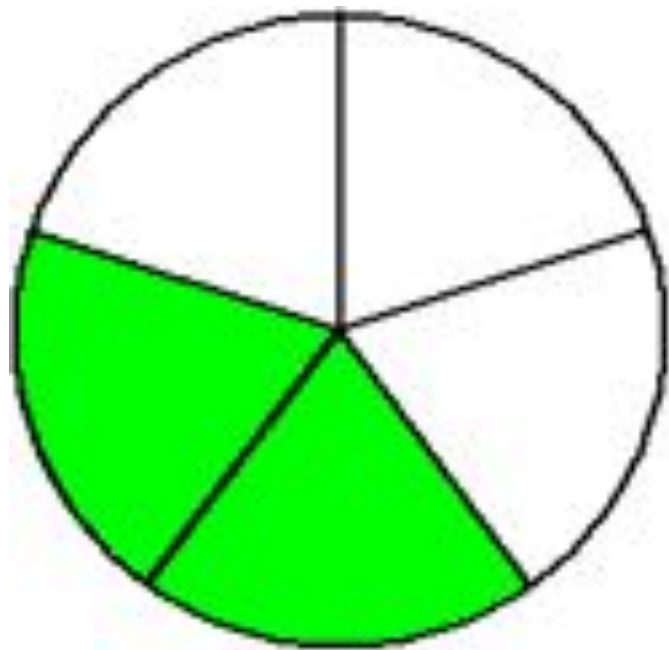


Try this one:

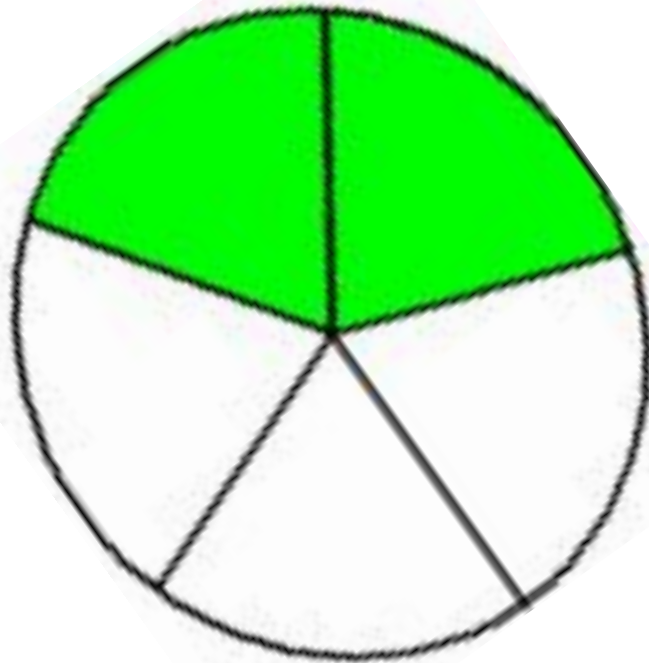
$$\frac{2}{5} + \frac{2}{5} =$$

Answer

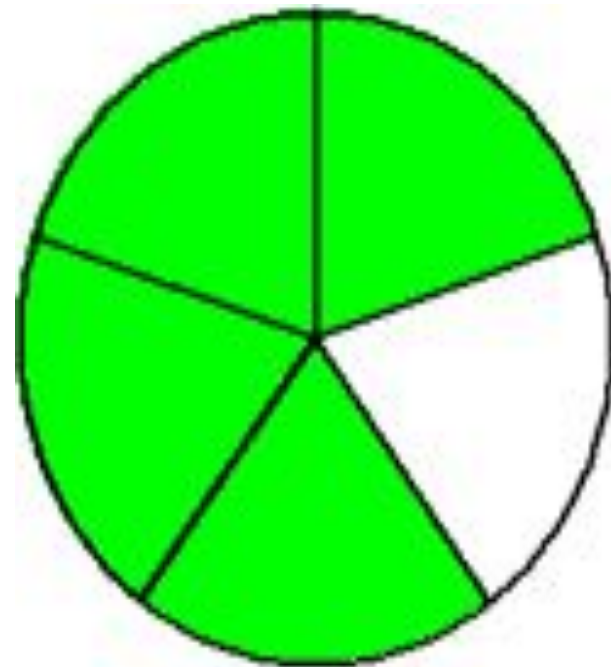
$$\frac{2}{5} + \frac{2}{5} = \frac{4}{5}$$



+



=



**On this occasion we will be adding mixed numbers.
The same rules apply.**

Because the denominator is the same we only have to add the numerators. The denominator stays the same. **We also have to add the whole numbers separately.**

$$2\frac{2}{8} + 3\frac{1}{8} = 5\frac{3}{8}$$

$$2 + 1 = 3$$

$$2 + 3 = 5$$

Try this one

$$1\frac{2}{4} + 2\frac{1}{4}$$

Answer

$$1\frac{2}{4} + 2\frac{1}{4} = 3\frac{3}{4}$$

$$2 + 1 = 3$$

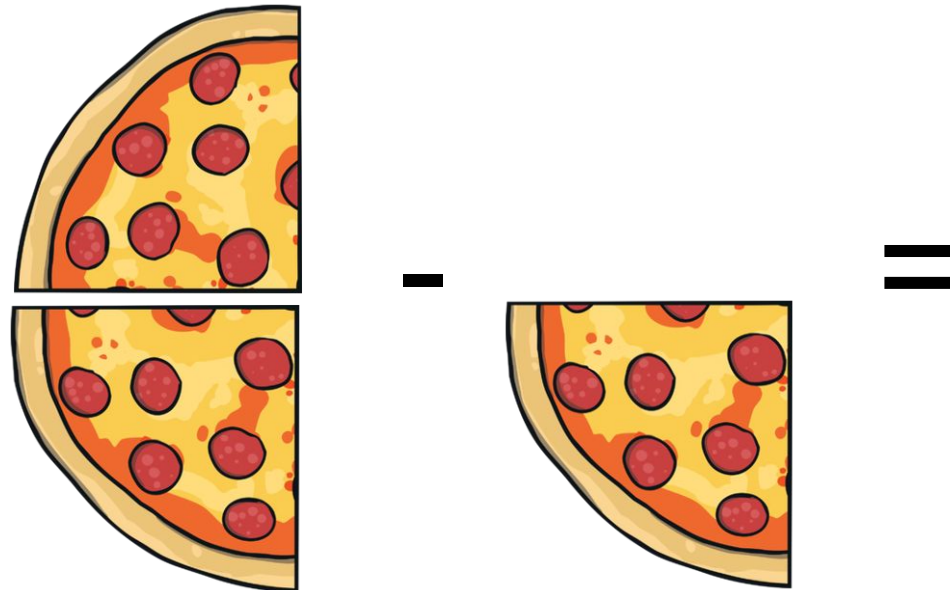
$$2 + 3 = 5$$

1. Denominator stays the same.
2. Add the numerators.
3. Add the whole numbers separately

Subtracting Fractions with the same denominator

$$\frac{2}{4} - \frac{1}{4} = \frac{\quad}{4}$$

If the denominator is the same in both fractions, then it stays the same in the answer.

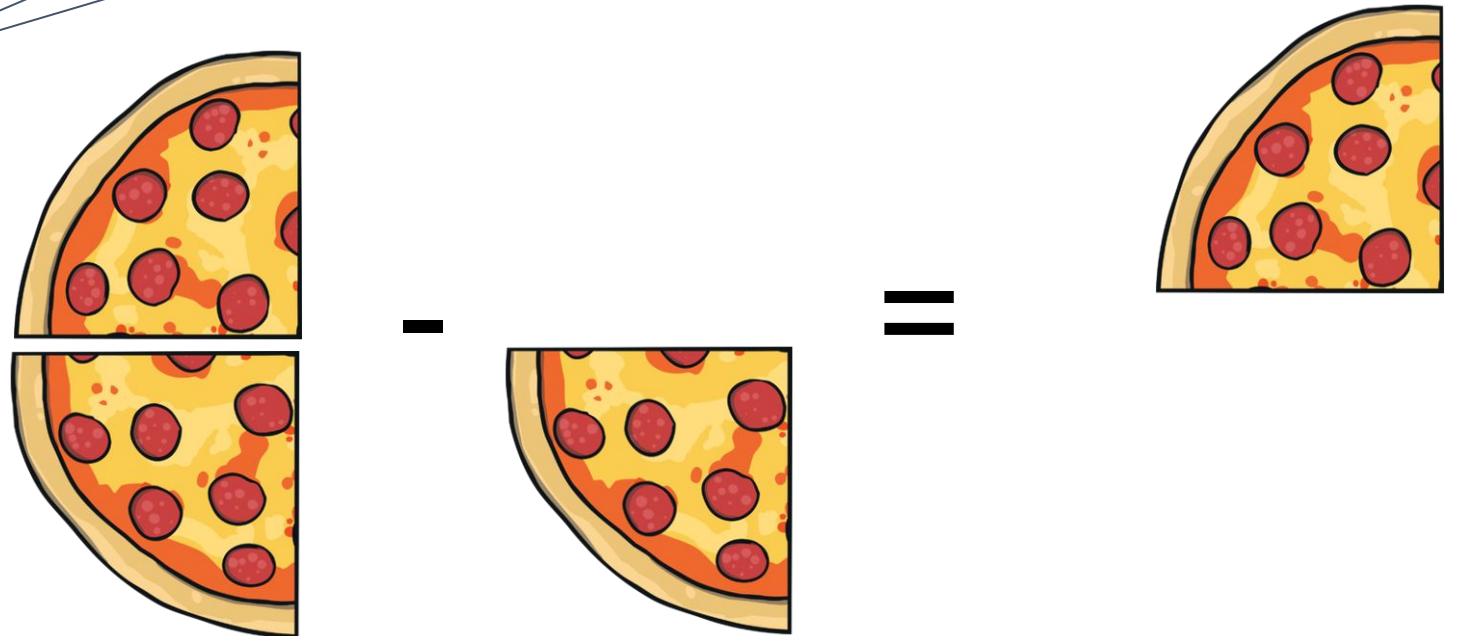


Subtracting Fractions with the same denominator


You then just subtract the numerators as you would normally.

$$\frac{2}{4} - \frac{1}{4} = \frac{1}{4}$$

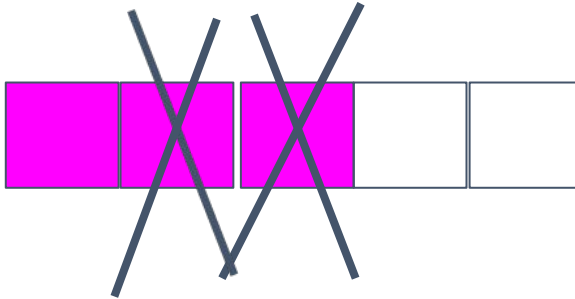
If the denominator is the same in both fractions, then it stays the same in the answer.




Subtracting fractions with the same denominator

$$\frac{3}{5} - \frac{2}{5} =$$


The diagram shows two horizontal bars, each divided into five equal segments. The first bar has the first three segments filled with pink, representing the fraction 3/5. The second bar has the first two segments filled with pink, representing the fraction 2/5. A minus sign is placed between the two bars.

$$\frac{3}{5} - \frac{2}{5} =$$


The diagram shows a single horizontal bar divided into five equal segments. The first three segments are filled with pink, and the last two segments are crossed out with two large grey 'X' marks, representing the subtraction of 2/5 from 3/5.

$$\frac{1}{5} =$$


The diagram shows a single horizontal bar divided into five equal segments. The first segment is filled with pink, representing the result of the subtraction, 1/5.

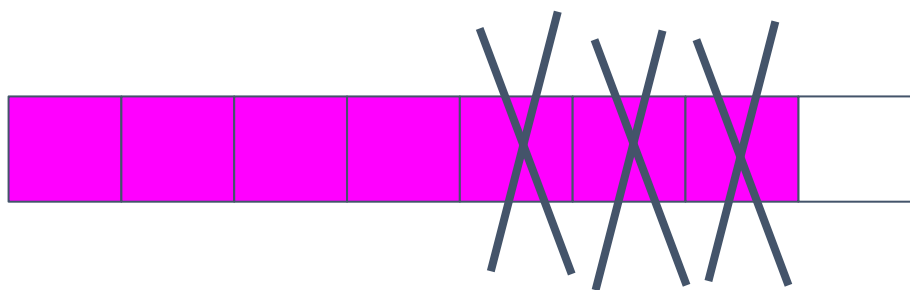
Try this one

$$\frac{7}{8} - \frac{3}{8} =$$



Answer

$$\frac{7}{8} - \frac{3}{8} = \frac{4}{8}$$



=



On this occasion we will be subtracting mixed numbers. The same rules apply.

Because the denominator is the same we only have to subtract the numerators. The denominator stays the same. We also have to subtract the whole numbers separately.

$$2\frac{3}{8} - 1\frac{1}{8} = 1\frac{1}{8}$$

$$3 - 1 = 2$$

$$2 - 1 = 1$$

Try this one

$$4\frac{3}{4} - 2\frac{1}{4}$$

Answer

$$4\frac{3}{4} - 2\frac{1}{4} = 2\frac{2}{4}$$

$$3 - 1 = 2$$

$$4 - 2 = 2$$

1. Denominator stays the same.
2. Subtract the numerators.
3. Subtract the whole numbers separately