

Arithmetic

Before you begin, practise your times tables on Time Tables Rockstars for 20 minutes

Subtracting Fractions

Lesson
5

In Focus



How much of the cake is left?

Two pieces have already been eaten.
I am taking another piece.



There are two parts to this problem. The first part of the problem tells us that Ruby has already eaten 2 pieces of cake and the picture shows the amount of cake left. The second part tells us that she is going to eat 1 more piece of cake.

How many pieces was the cake divided into at first? How can we tell?

Since Ruby says 2 pieces have already been eaten and there are 5 pieces left, this tells us there were 7 pieces at first.

What is the fraction for 1 piece of cake? $1/7$ - should be read as 1 seventh.

What fraction of the cake has Ruby eaten? $2/7$ - should be read as 2 sevenths.

What fraction of the cake is left? $5/7$ - should be read as 5 sevenths.

We know this because $2/7 + 5/7 = 7/7$, which is 1 whole.

Ruby says she is taking 1 more piece. What fraction of the cake is 1 piece? $1/7$

So, we know that there are $5/7$ of the cake remaining and Ruby eats $1/7$ more. What fraction of cake is left?

Which operation do you need to use to find the fraction of cake left?

We need to use subtraction to find the fraction of cake left: $5/7 - 1/7 = 4/7$.

Let's Learn

1 Each piece is 1 seventh of the cake.

$$\frac{5}{7}$$

There are 5 sevenths of the cake.



Is taking 1 seventh of the cake.

$$\frac{1}{7}$$

5 sevenths - 1 seventh = 4 sevenths

$$\frac{5}{7} - \frac{1}{7} = \frac{4}{7}$$

4 sevenths of the cake is left.

2 Subtract $\frac{1}{9}$ from $\frac{5}{9}$.



$$\frac{5}{9} - \frac{1}{9} = \frac{4}{9}$$

$$5 \text{ ninths} - 1 \text{ ninth} = 4 \text{ ninths}$$



Let's Learn, question 2

We are now subtracting $\frac{1}{9}$ from $\frac{5}{9}$.

What do you notice?

Subtracting fractions with the same denominator is the same as subtracting whole numbers.

How?

Because we do not subtract the denominator as it tells us how many parts a whole has been divided into. We only subtract the numerators as they tell us the number of parts we are counting.

Guided Practice

1 Subtract.

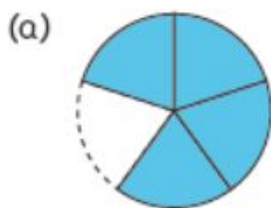


$$\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$$

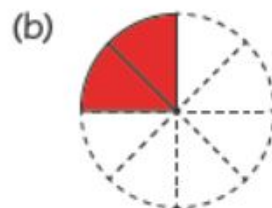


$$\frac{6}{7} - \frac{4}{7} = \frac{2}{7}$$

2 Subtract.



$$\frac{4}{5} - \frac{1}{5} = \frac{3}{5}$$



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



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



$$\frac{4}{6} - \frac{1}{6} = \frac{3}{6}$$

3 Subtract.

(a) $\frac{6}{7} - \frac{3}{7} = \frac{3}{7}$

(b) $\frac{6}{9} - \frac{2}{9} = \frac{4}{9}$

(c) $\frac{7}{8} - \frac{1}{8} = \frac{6}{8}$



Worksheet 5

Subtracting Fractions

1 Subtract.

$$\text{a) } \frac{2}{8} - \frac{1}{8} = \frac{?}{?}$$

$$\text{b) } \frac{9}{10} - \frac{3}{10} = \frac{?}{?}$$

$$\text{c) } \frac{8}{12} - \frac{3}{12} = \frac{?}{?}$$

$$\text{d) } \frac{6}{7} - \frac{4}{7} = \frac{?}{?}$$

2 Fill in the blanks.

$$\text{a) } \frac{9}{10} - \frac{?}{?} = \frac{6}{10}$$

$$\text{b) } \frac{7}{11} - \frac{?}{?} = \frac{2}{11}$$

$$\text{c) } \frac{2}{3} - \frac{?}{?} = \frac{1}{3}$$