

Maths – Week Beginning 8th February 2021

This week we'll be learning how to calculate with Fractions.

But first, last week's punchlines...

Why did the teacher wear sunglasses ?

Because the pupils were so bright!

Why did the boy eat his homework?

Because his teacher said it was a piece of cake!

Why did the music teacher need a ladder?

To reach the high notes!

Monday 8th February 2021

Please go to : Subtract Fractions

<https://classroom.thenational.academy/lessons/subtract-fractions-6hh66r>

This lesson follows on really well from last Thursday's lesson on adding fractions and before you start, it would be really good to reflect on the STEM sentence we used during that lesson. You will need a very similar STEM sentence:

To subtract fractions, the denominators must be the same.

To do this you will need to convert the fractions so that they have the same denominator. To do this, remember this STEM sentence:

To find a common denominator you must find the lowest common multiple.

That is the first number that is in both of the numbers' times tables e.g.

$\frac{3}{4}$ and $\frac{4}{6}$

The lowest common multiple is 12, so the new fractions become:

$\frac{9}{12}$ and $\frac{8}{12}$

There is a quiz to start. It is quite challenging, so if you need to look back at notes from previous lessons then please do. Take your time and if you make a mistake please look at the correction and try to work out where you went wrong.

Main Lesson

Miss Parsons uses some pictorial representations to demonstrate some of the calculations. These will help you to understand the concept but please don't try to use this technique to answer questions yourself; it would take very careful measuring and is not the most efficient method.

When the video moves on to fraction sequences, don't be phased. Remember to convert mixed fractions into improper fraction BEFORE converting them so that you have a common denominator. Then you just have to spot the rule of the number sequence and use that to find the missing numbers.

Independent Tasks

When Miss Parsons goes through the answers you will see that she makes the answers to Question 1b a little harder than it needs to be – can you recognise how it could have been easier? Look really carefully at any mistakes you make and try to see how Miss Parsons explains each answer, so that you know where you went wrong.

Final Quiz

There is a final quiz, try to get them all correct!

Tuesday 9th February 2021

Fractions Problem Solving

<https://classroom.thenational.academy/lessons/fractions-problem-solving-c9k38d>

There is a quiz at the start, I think most of you should get at least 3/5 and some of you should aim for 5!

Main Lesson

The lesson uses shapes and perimeter calculations to test your ability to convert between improper and mixed fractions, find common denominators and to teach you the skill of adding and subtracting fractions. It also recaps properties of shapes and revises how to calculate perimeter. There is an awful lot covered in this lesson and the pace is swift. This is perfect for some of you, but for others it will be a real challenge. If you are struggling to keep up, you can reduce the speed to quite literally slow the pace of the session. You can replay sections and look back through your previous notes to remind you how to do certain operations as you go. If you find you need a break and want to spread this lesson over two days, that is absolutely fine. It's better to slow down and really engage with the lesson than to rush through it with little understanding, so please, persevere. If you get really stuck, contact us here at school and we can arrange extra support for you – do not struggle in silence!

Independent Tasks

The tasks are actually much simpler than the examples in the lesson so have a good go at them and watch carefully when Miss Parson's goes through them to ensure you spot and can correct any mistakes you have made.

Final Quiz

It's actually not too challenging, so you should all aim for at least 4/5!

Wednesday 10th February 2021

<https://classroom.thenational.academy/lessons/fractions-represent-multiplication-with-proper-fractions-c9h64e>

Fractions: Represent multiplication with proper fractions

There is a quiz, which recaps lots of the learning we have been doing about fractions; take your time and try to get 5/5!

Main Lesson

There is some recapping of key vocabulary; it's a good idea to jot this down so that you can refer to it later.

Miss Parsons asks you to represent the calculation $6 \times \frac{3}{4}$. I think the way she demonstrates the various ways of thinking about this calculation is excellent, so please watch carefully and really engage with what she's showing you.

Independent Task

Your diagrams don't need to be 100% accurate. The important thing is that you're able to see how these representations are linked to the calculations. This will prepare you for the next session, which is about the procedure to follow when multiplying fractions.

There is no final quiz.

Thursday 11th February 2021

Fractions: Multiply pairs of proper fractions

<https://classroom.thenational.academy/lessons/fractions-multiply-pairs-of-proper-fractions-c4rp4r>

The quiz at the start should look very familiar....

Main Lesson

The procedure for multiplying fractions by fractions is actually much easier than the understanding of what you're actually doing (the reasoning aspect) which is what you were doing yesterday. Multiplying a fraction by a whole number is slightly different; you need to turn the whole number into a fraction over one. Miss Parsons explains this really clearly but it might help to think of the line in the fraction (vinculum) as meaning 'divided by'. So, for example, $5/1$ means 5 divided by 1, which would equal 5.

Miss Parsons explains the procedure really well but doesn't ask you to write it down. At the appropriate point in the video, I'd like you to write down the following STEM sentence:

To multiply fractions, we need to multiply the numerators and denominators of both fractions.

Then, reduce to the simplest form or as a mixed number if we are asked to do so.

You may also need a STEM Sentence to remind you how to simplify a fraction:

To simplify a fraction, we need to divide the numerator and the denominator by their highest common factor.

Independent Task

Some of you will be able to work through the first questions very quickly, although Questions 3, 4 and 5 are a bit more challenging. If you finish quite quickly and you need an extra stretch, head to the 'Maths Extension Tasks' tab on the school website.

There is a final quiz to complete, it's not too challenging so try to get at least 4/5!

Friday 12th February 2021

Remember, if the videos have taken a bit longer because you needed to re-watch parts, then please continue to work through those lessons today as your main priority. If you have time please complete at least one of the Maths Mats, more if you can.

If, however you are someone who finds Maths comes a little more naturally to you, please complete two of the Maths Mats and, if you have time, head to the 'Maths Extension Tasks' tab on the website for more challenges to complete.