

Wednesday 3rd June 2020

WALT multiply fractions by fractions.

Well done on all your work yesterday!

We are going to carry on with multiplying fractions today, but this time by fractions! The important thing to remember is that times also means 'of'. So when we say  $\frac{1}{3} \times 4$ , we also mean  $\frac{1}{3}$  of 4. Similarly, when we sahe  $\frac{1}{3} \times \frac{1}{2}$ , we also mean  $\frac{1}{3}$  **of**  $\frac{1}{2}$ .

Let's warm up with TT Rockstars as normal...

Log onto TTRockstars and practice your times tables (the log ins were sent home in an envelope to you)

<https://trockstars.com/>



Starter: WALT multiply fractions by whole numbers.

Let's have a quick recap on yesterday:

1.  $\frac{8}{10} \times 5$
2.  $\frac{2}{3} \times 4$
3.  $\frac{3}{5} \times 5$
4.  $\frac{9}{10} \times 6$
5.  $\frac{1}{2} \times 5$
6.  $\frac{1}{5} \times 2$

WALT multiply fractions by fractions.

So today we are moving on to think about what happens when we multiply fractions by fractions. Don't worry - it is a very similar method!

To understand how this works, we really need to visualise what is happening, which is clearly explained in the video here: <https://vimeo.com/415879473>

### Multiply fractions by fractions

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Sally eats  $\frac{1}{2}$  of the chocolate bar.

She then eats  $\frac{1}{2}$  of what is left.

As a fraction, how much of the chocolate bar is left?

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So essentially, we need to multiply the numerators together, then multiply the denominators together.

It is important we understand **why** this is true, as if we understand why a method works, it makes it easier to remember. But it is much more straightforward than some of the other methods we have learnt!

Now practice it further by doing this worksheet:

<https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-2-Multiply-fractions-by-fractions-2019.pdf>

Remember that method we have discussed and think about how the different diagrams show that.

## HINTS:

Qu 2 and 3: When you are shading, remember that 'x' also means 'of'

Qu 3b: Remember to simplify the fraction that is the answer before you decide if Mo is right or wrong

Qu 8: Use the same method as you have been for the rest of the sheet - it is just putting it in a different context, but it is the same idea.

Qu 9: You need to do several calculations for this one. What do you need to find the **shaded** area? If you find the area of the whole rectangle, what do you need to take away from it to find the answer? (The answer uses quite large numbers by the way)

Now check the answers here:

<https://resources.whiterosemaths.com/wp-content/uploads/2020/04/Lesson-2-Answers-Multiply-fractions-by-fractions-2019.pdf>

## Answers:

1.  $8/10 \times 5 = 40/10 = 4$

2.  $2/3 \times 4 = 8/3$

3.  $3/5 \times 5 = 15/5 = 3$

4.  $9/10 \times 6 = 54/10$

5.  $1/2 \times 5 = 5/2$

6.  $1/5 \times 2 = 2/5$