

Calculating Fractions and Decimals

Maths

Year 6

Lesson 4 of 5

Learning Objective		Resources
To be able to multiply simple fractions.		Slides Domino Cards 4A/4B Fraction Cards Game Sheet
Teaching Input		
<ul style="list-style-type: none"> Show children the calculation $\frac{2}{3} \times \frac{4}{5}$ on the slides along with the corresponding diagram. What do you think the answer to this calculation might be? Why? Give children time to discuss their responses. Go through the process on the slides showing how arrays can be used to demonstrate what is happening when we multiply fractions together. Go through the calculations on the slides asking children to draw out the arrays on mini-whiteboards and using these to find the answer. Show each calculation that has been completed with its answer. Can you find a way of solving these calculations without having to draw out the array each time? Children to think, pair, share their ideas. Point out that all you are doing is multiplying the two denominators and the two numerators together. Challenge children to explain <i>why</i> this method works with a partner. Children to solve the calculations on the slides, simplifying the answers if necessary. 		
Main Activity		
<u>Lower ability:</u>	<u>Middle ability:</u>	<u>Higher ability:</u>
Provide children with a set of Domino Cards 4A. Children are challenged to match the question to the answer (represented both as a fraction and as an array).	Provide children with a set of Domino Cards 4B. Children are challenged to match the question to the answer. There is a blank space next to each answer: challenge children to simplify the answers whenever possible.	Provide children with a set of the Fraction Cards in pairs. Children to place the cards face-down on the table. They each pick two cards and work out what the answer would be if they multiplied the fractions together. The child whose answer has the greatest value wins a point. Children can record their game on the Game Sheet.
Fancy something different...?		
<ul style="list-style-type: none"> Show children the blank calculation on the slides. In pairs or small groups, challenge children to find as many possible correct ways to complete this calculation as they can. Encourage lower-ability children to use a grid as shown in the slides to work out the arrays. Higher-ability children should use their knowledge of factors and multiples to find as many answers as possible, checking in a diagram if necessary. After a given time, invite each group to share how many calculations they found and to explain how they found the answers. Repeat this as many times as you can with the following calculations on the slides. 		
Plenary	Assessment Questions	
Show children the statement: Dividing by three is the same as multiplying by a third. Is this statement true or false? How do you know? Give children some time to discuss this in pairs or small groups, providing evidence to back up their conclusions. Give them some time to share their method and findings with the rest of the class.	<ul style="list-style-type: none"> Do children understand the process of what happens when two fractions are multiplied? Can children multiply two fractions together? Do children recognise that multiplying proper fractions makes the product smaller than the multiplier and multiplicand? 	