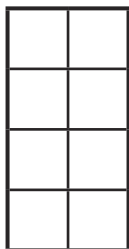


1a) Shade this area model to show that:

$$\frac{3}{4} \times \frac{1}{2} \text{ is the same as } \frac{3}{4} \text{ of } \frac{1}{2}$$



Now shade the area models to represent the answers to these calculations. Record your answers in their simplest form.

b) $\frac{2}{3} \times \frac{1}{2} = \frac{\square}{\square}$ or $\frac{\square}{\square}$

c) $\frac{2}{5} \times \frac{1}{2} = \frac{\square}{\square}$ or $\frac{\square}{\square}$

d) $\frac{3}{4} \times \frac{1}{3} = \frac{\square}{\square} = \frac{\square}{\square}$

2) Give the missing digits for each of these calculations.

$$\frac{1}{\square} \times \frac{2}{10} = \frac{\square}{\square} \text{ or } \frac{1}{10}$$

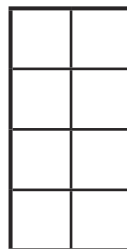
$$\frac{2}{5} \times \frac{5}{\square} = \frac{\square}{\square} \text{ or } \frac{1}{3}$$

$$\frac{\square}{5} \times \frac{3}{8} = \frac{\square}{\square} \text{ or } \frac{3}{10}$$

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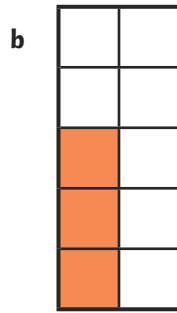
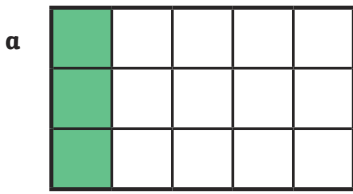
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- 1) Archie has drawn two different area models to show what happens when $\frac{1}{2}$ is multiplied by $\frac{3}{5}$.

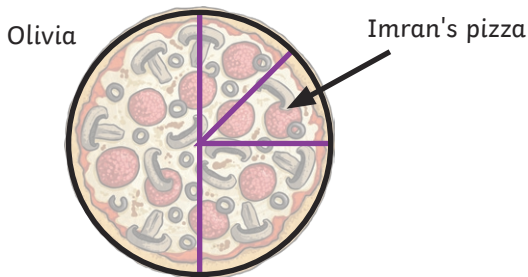
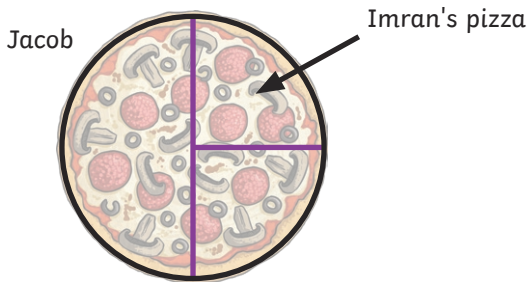


Explain to Archie which of his area models is correct and why.



- 2) A family ordered a large pizza to share. They managed to eat $\frac{1}{2}$ of the pizza and saved the rest. The next day Imran ate $\frac{1}{4}$ of the leftover pizza. How much of the whole pizza did Imran eat?

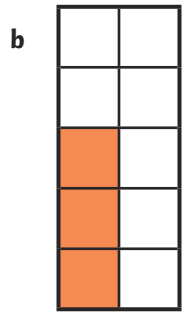
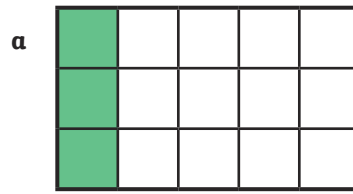
Jacob and Olivia both tried to represent the problem. Who was correct? What calculation shows how much pizza Imran ate?



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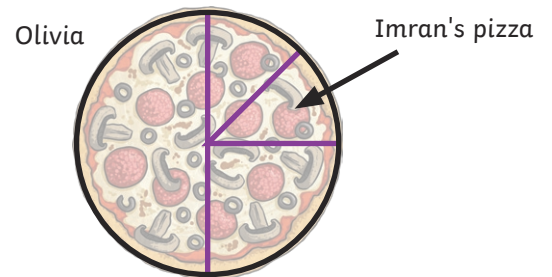
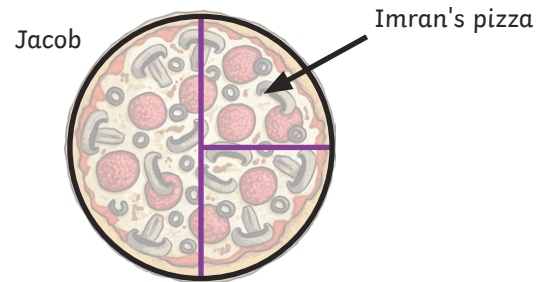


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- 1) Freya is given a set of digit cards from 1 to 6.



She uses four of the cards to make two fractions, e.g. $\frac{1}{2}$ and $\frac{3}{4}$.

She multiplies these fractions together to make $\frac{3}{8}$.

- a) What is the greatest possible answer that Freya could make by using the digit cards 1 to 6 in this way?
(She can only use each digit once.)
- b) What is the smallest possible fraction she can make?
- c) Freya makes a fraction with a denominator > 6 . Can you find more than one way?
- 2) Using a different number (any number) for each part of the fraction, can you find five different ways to complete this calculation?

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