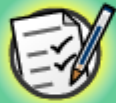


$$5 \times 7 = 35$$
$$20 + 2 = 22$$

Multiplying Fractions 1



Common core icons



This icon indicates a slide where the Standards for Mathematical Practice are being developed. Details of these are given in the Notes field.



Slides containing examples of mathematical modeling are marked with this stamp.



This icon indicates an opportunity for discussion or group work.

The **Standards for Mathematical Practice** outlined in the Common Core State Standards for Mathematics describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.

These are:

- 1) **Make sense of problems and persevere in solving them.**
- 2) **Reason abstractly and quantitatively.**
- 3) **Construct viable arguments and critique the reasoning of others.**
- 4) **Model with mathematics.**
- 5) **Use appropriate tools strategically.**
- 6) **Attend to precision.**
- 7) **Look for and make use of structure.**
- 8) **Look for and express regularity in repeated reasoning.**



This icon indicates that the slide contains activities created in Flash. These activities are not editable.



This icon indicates teacher's notes in the Notes field.

Multiplying unit fractions

MODELING



board
works

The cafeteria is serving pizza for lunch. At the end of the meal, Alicia, Jamal and Cory each have one fourth of their pizzas left over. How much pizza is left altogether?



When we multiply a whole number by a fraction, we are actually multiplying the whole number by the numerator of the fraction.

Remember that a whole number can be written as a fraction by placing the number over 1.

If you think of a whole number as a fraction, you can simply multiply the numerator by the numerator and the denominator by the denominator.

$$\begin{aligned} & 4 \times \frac{1}{5} \\ = & \frac{4}{1} \times \frac{1}{5} \\ = & \frac{4}{5} \end{aligned}$$





$$5 \times \frac{1}{3}$$



Will the answer to this problem be greater than, less than or equal to five?

We know that $5 \times 1 = 5$.

Five times a number less than one gives us an answer less than five.





$$3 \times \frac{4}{3}$$



Will the answer to this problem be greater than, less than or equal to three?

We know that $3 \times 1 = 3$.

Three times a number greater than one gives us an answer greater than three.



Matching fractions

$$\frac{5}{4}$$

$$7 \times \frac{1}{6}$$

Match the fractions with the correct expressions.

Press **start** to begin.

start

$$1$$

$$2 \times \frac{1}{5}$$



Multiplying fractions

MODELING



board
works

Alicia, Jamal and Cory each have two fifths of a pizza left over from lunch. How much pizza is left altogether?





Q1/5 Ty is making cookies. He wants to triple the recipe to make three times as many cookies. If the recipe calls for $\frac{3}{4}$ cup of flour, how much should Ty put in?

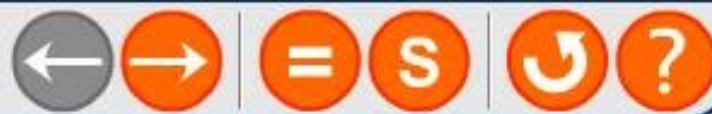


Press the "=" button to show the work step by step.

$$\frac{3}{4} \text{ cup}$$

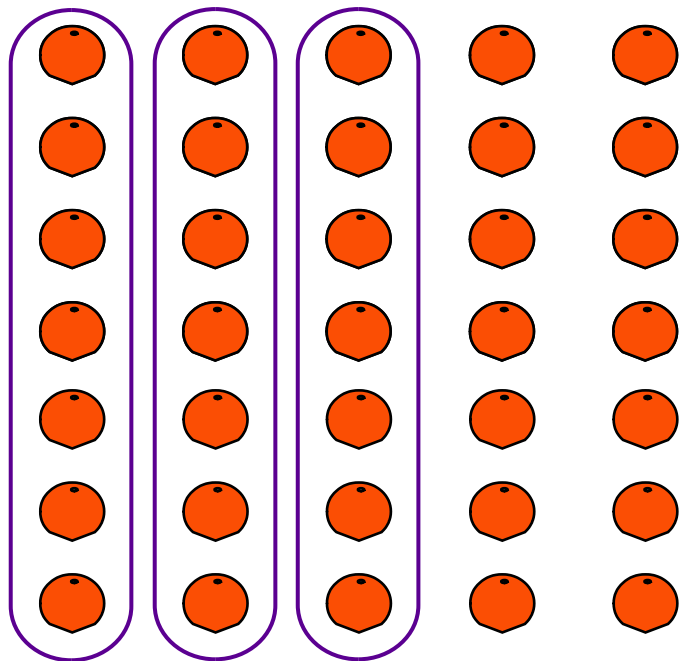
$$2 \frac{1}{4} \text{ cup}$$

$$9 \frac{1}{4} \text{ cup}$$





Liz's grandma grows oranges in Florida. She has 35 oranges, and wants to bring $\frac{3}{5}$ of them when she visits Liz's family. How many oranges will she bring?



Divide the oranges into **5** columns.

There are 7 oranges in each column.

Count the number of oranges in **3** columns.

There are 21 oranges in 3 columns.

Liz's grandma will bring 21 oranges.



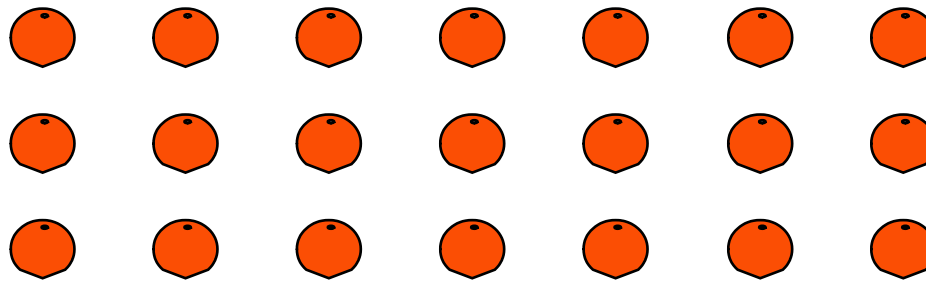
To find a fraction of an amount, we can divide the amount by the **denominator** and multiply by the **numerator**.

$\frac{3}{5}$ of 35 oranges...

$$35 \div 5 = 7$$

$$7 \times 3 = 21$$

So the answer is 21 oranges.

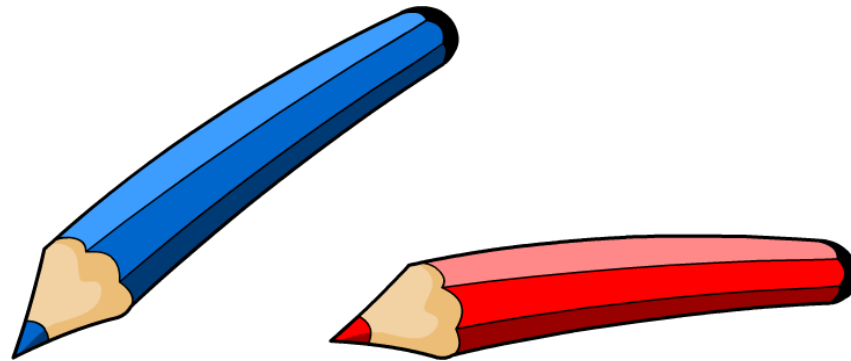


Nadia has a packet of 30 pencils but two fifths of them are blunt. How many does she need to sharpen?

$$30 \times \frac{2}{5}$$

$$30 \div 5 = 6$$

$$6 \times 2 = 12$$



She needs to sharpen 12 blunt pencils.



Which calculation?

MODELING



board
works

Choose the calculation that
would help you solve each
problem.

Press **start** to begin.

start

