Dear Family,

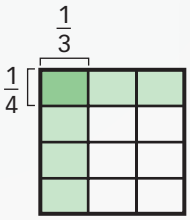
This week your child is exploring products of fractions.

He or she might see a problem like this:

> If $\frac{2}{3}$ of the gym floor has been cleaned and students can play on $\frac{3}{4}$ of the cleaned floor, what part of the whole gym floor can the students play on?

To solve the problem, you multiply $\frac{3}{4} \times \frac{2}{3}$.

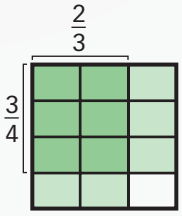
An area model can help you visualize the problem.



The first model shows $\frac{1}{4}$ and $\frac{1}{3}$ of the same whole.

Each row shows $\frac{1}{4}$ of the whole.
Each column shows $\frac{1}{3}$ of the whole.
The part shaded dark green shows $\frac{1}{4}$ of $\frac{1}{3}$ of the whole.

The second model shows $\frac{3}{4}$ and $\frac{2}{3}$ of the same whole.



3 rows show $\frac{3}{4}$ of the whole.
2 columns show $\frac{2}{3}$ of the whole.
The part shaded dark green shows $\frac{3}{4}$ of $\frac{2}{3}$ of the whole.

The model is divided into 12 equal parts, 6 of which are shaded dark green.

$\frac{6}{12}$ of the whole is shaded dark green. So, $\frac{3}{4} \times \frac{2}{3} = \frac{6}{12}$.

Students can play on $\frac{6}{12}$, or $\frac{1}{2}$, of the gym floor.

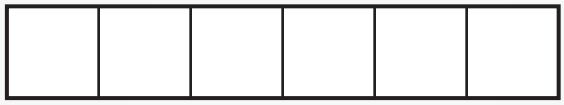
Invite your child to share what he or she knows about products of fractions by doing the following activity together.

NEXT

Products of Fractions Activity

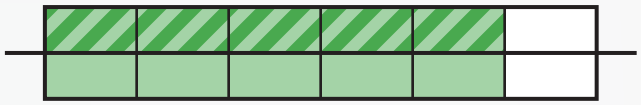
Materials: 2 different colors of crayons or colored pencils, number cube

- Together with your child, use the blank rectangle at the bottom of the page to show the product of fraction multiplication.
- One person rolls the number cube. This number tells how many equal parts to show in the rectangle. Draw vertical lines to show the equal parts.
  - Example: Roll a 6 and draw vertical lines to show 6 equal parts in the rectangle.



- The same person shades a fraction of the rectangle and names that fraction.
  - Example: Shade $\frac{5}{6}$.

- The other person rolls the number cube. This number tells how many equal parts to show in the same rectangle. Draw horizontal lines to show the equal parts.
  - Example: Roll a 2 and draw a horizontal line to show 2 equal parts (top and bottom) of the rectangle.



- The same person shades the parts that overlap.
- Together, write the fraction multiplication that the picture shows.
  - Example: $\frac{1}{2} \times \frac{5}{6} = \frac{5}{12}$