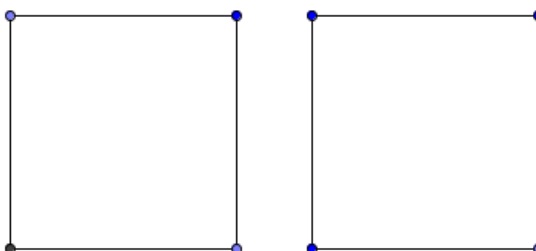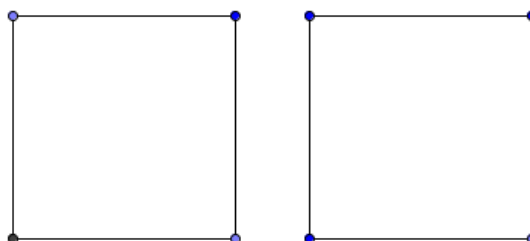# Student Activity: To investigate multiplication of Fractions

Use in connection with the interactive file, 'Multiplication of Fractions', on the Students CD.
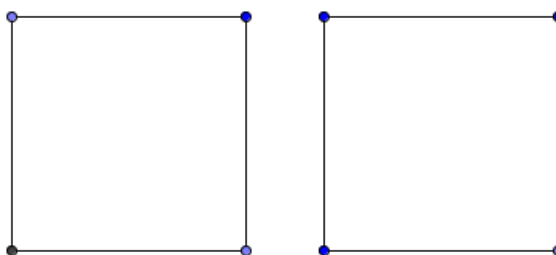
1. (a) Using a ruler and pencil, mark off $\frac{3}{4}$ of the first rectangle and $\frac{1}{5}$ of the second rectangle and imagine the rectangles move over each other to calculate $\frac{1}{5}$ of $\frac{3}{4}$.

(b) Mark off $\frac{1}{5}$ of the first rectangle and $\frac{3}{4}$ of the second rectangle and imagine the rectangles move over each other to calculate $\frac{3}{4}$ of $\frac{1}{5}$. What do you notice?

(c) Mark off $\frac{2}{3}$ of the first rectangle and $\frac{3}{5}$ of the second rectangle and imagine the rectangles move over each other to calculate $\frac{3}{5}$ of $\frac{2}{3}$.
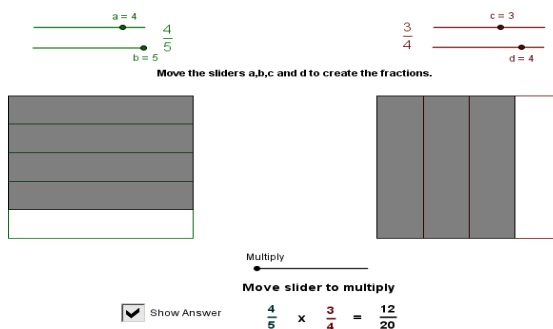
2. Using the interactive file, multiplication of fractions, illustrated below using the example 4/5 by 3/4, answer the following questions:

a = 4

$\frac{4}{5}$

b = 5

c = 3

$\frac{3}{4}$

d = 4

Move the sliders a,b,c and d to create the fractions.

Multiply

Move slider to multiply

☑ Show Answer $\frac{4}{5}$ x $\frac{3}{4}$ = $\frac{12}{20}$

(a) Multiply $\frac{1}{4}$ by $\frac{3}{5}$.

(b) Multiply $\frac{1}{2}$ by $\frac{5}{6}$.

(c) Is getting $\frac{1}{2}$ of $\frac{3}{4}$ the same as multiplying $\frac{1}{2}$ by $\frac{3}{4}$? Explain your answer.

_____

(d) Explain how you multiply fractions

_____

3. Brian ate $\frac{4}{5}$ of his bag of sweets and then gave $\frac{1}{4}$ of the reminder to his sister.

   (a) What fraction of the whole bag does his sister get?

   _____

   (b) What fraction of the whole bag is now left?

   _____

   (c) Predict what you would get if you add the fraction of sweets in the bag that Brian ate, the fraction that his sister got and the fraction that Brian has left over.

   _____

   (d) Now do the calculation. Explain what your answer means in the context of the sweets.

   _____

   _____

4. Vicky spent $\frac{5}{6}$ of her savings on clothes and then spent $\frac{1}{3}$ of the remainder on books.

   (a) What fraction of her savings did she spend on books?

   _____

   (b) What fraction of her original savings has she now?

   _____

   (c) If her total savings were 54 euro, how much has she left?