Name: .... Class: ....

Divide unit fractions by whole numbers using models

Solve the following problems using models.

a. $\dfrac{1}{5} \div 4$

b. $\dfrac{1}{3} \div 3$

c. $\dfrac{1}{2} \div 8$

mathskills4kids

Name: .... Class: ....
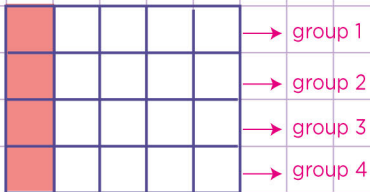
Divide unit fractions by whole numbers using models.

Solve the following problems using models

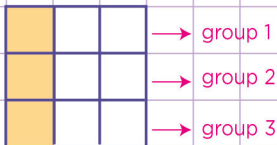**a.** $\dfrac{1}{5} \div 4$

Let's first of all interpret the expression by drawing the model and dividing it into 4 groups of $\dfrac{1}{5}$

→ group 1
→ group 2
→ group 3
→ group 4

The shaded squares represent one fifths in four groups.

Each group gets 1 out of a total of 20 squares in the model.

So, each group gets $\dfrac{1}{20}$ of the whole.
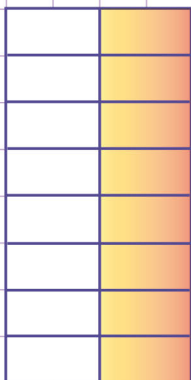
Therefore, $\dfrac{1}{5} \div 4 = \dfrac{1}{20}$

b. $\dfrac{1}{3} \div 3$

Let's first of all interpret the expression by drawing the model and dividing it into 3 groups of $\dfrac{1}{3}$

→ group 1
→ group 2
→ group 3

The shaded squares represent one third in three groups.

Each group gets 1 out of a total of 9 squares in the model.

So, each group gets $\dfrac{1}{9}$ of the whole.

Therefore, $\dfrac{1}{3} \div 3 = \dfrac{1}{9}$

c. $\dfrac{1}{2} \div 8$

Let's first of all interpret the expression by drawing the model and dividing it into 8 groups of $\dfrac{1}{2}$

The shaded rectangles represent halves in eight groups.

Each group gets 1 out of a total of 16 rectangles in the model.

So, each group gets $\dfrac{1}{16}$ of the whole.

Therefore, $\dfrac{1}{2} \div 8 = \dfrac{1}{16}$