

Understand it!
A fraction can name part of a set whole, part of a set or part of a segment.

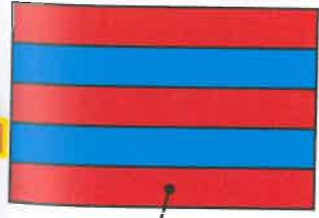
Defining Fractions

What is the meaning of a fraction?
A fraction describes one or more parts of a whole that is divided into equal parts. The whole can be a grid, a set or a segment.

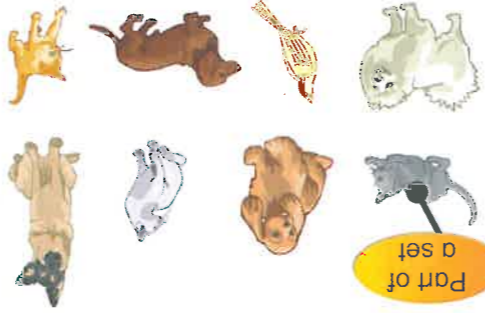
numerator $\frac{3}{5}$ → number of equal parts that are red
denominator $\frac{3}{5}$ → total number of equal parts

is red.

In the flag shown at the right, $\frac{5}{8}$ of the flag



Part of a grid



Part of a set

There are 8 animals. 3 out of 8 are cats.
 $\frac{3}{8}$ of the animals are cats.



There are 4 parts to the segment. 1 of the parts is shaded. $\frac{1}{4}$ of the segment is shaded.

Guided Practice

Write the fraction that names the shaded part.



7 What fraction names the part of the animals that are dogs in the figure at the top of page 141?

8 A quilt has 16 equal parts and $\frac{4}{8}$ of the parts are yellow. Draw a diagram.

9 What fraction names the part of the quilt that is yellow?



Reasoning

11 A parking attendant believes that the car park is $\frac{8}{12}$ full. Is he correct? Explain your thinking.



Independent Practice

Write the fraction that names the shaded part.



Write the fraction that names the unshaded part.



Draw a model to show each fraction.

13 8 out of 9 as part of a grid

14 6 out of 7 as part of a set

Problem Solving

15a Explain what the process of division has to do with fractions.

b Give examples and draw diagrams to aid in your explanation.