

Describing and comparing fractions

CAPS Statement

Numbers, Operations and Relationships

Describe and compare common fractions in diagram form and with the aid of fraction strips

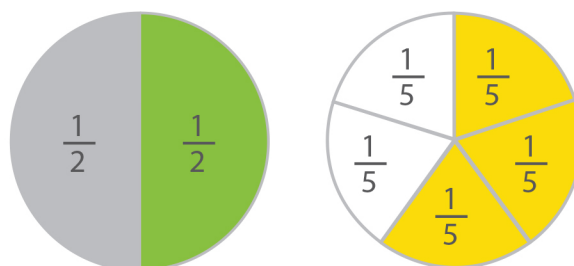
Notes

Lets compare $\frac{2}{4}$ with $\frac{3}{5}$ using fraction strips:



These two strips are extracted from the fraction table on page 79. Here you can clearly see that the yellow strip (representing $\frac{2}{4}$) is shorter than the green strip (representing $\frac{3}{5}$).

There is another way of representing fractions, called a circle diagram. These diagrams can also be used to do calculations involving fractions. To represent the above example take a circle and split it into sections equal to the value of the denominator. Colour in the section that is equal to the value of the numerator, like this:



Here you can see that the green sections are more than the yellow sections. Therefore, $\frac{1}{2}$ is smaller than $\frac{3}{5}$.

Activity 1

Select the correct word to make the following statements true. Make use of fractions strips.

How to make a fraction strip: cut strips of paper with equal lengths and divide the strips into sections equal to the denominator of the fraction you want to work with.

Example

$\frac{5}{8}$ is greater than or smaller than or equal to $\frac{2}{4}$ and $\frac{3}{5}$



a	$\frac{6}{7}$	is	greater than	or	smaller than	or	equal to	$\frac{3}{7}$
b	$\frac{4}{5}$	is	greater than	or	smaller than	or	equal to	$\frac{2}{6}$
c	$\frac{3}{8}$	is	greater than	or	smaller than	or	equal to	$\frac{2}{4}$
d	$\frac{4}{6}$	is	greater than	or	smaller than	or	equal to	$\frac{2}{3}$
e	$\frac{2}{7}$	is	greater than	or	smaller than	or	equal to	$\frac{2}{8}$
f	$\frac{4}{5}$	is	greater than	or	smaller than	or	equal to	$\frac{2}{7}$
g	$\frac{2}{3}$	is	greater than	or	smaller than	or	equal to	$\frac{4}{6}$
h	$\frac{4}{8}$	is	greater than	or	smaller than	or	equal to	$\frac{1}{2}$
i	$\frac{2}{5}$	is	greater than	or	smaller than	or	equal to	$\frac{3}{4}$

Activity 2

Sort the following sets of numbers from smallest to biggest. Use the circle diagram method only.

Example

$$\frac{3}{6} ; \frac{1}{3} ; \frac{3}{8}$$

Answer: $\frac{3}{8} ; \frac{1}{3} ; \frac{3}{6}$

a $\frac{2}{3} ; \frac{4}{7} ; \frac{2}{5}$

Answer:

b $\frac{5}{7} ; \frac{3}{7} ; \frac{2}{8}$

Answer:

c $\frac{2}{4} ; \frac{2}{7} ; \frac{2}{8}$

Answer:

d $\frac{4}{5} ; \frac{1}{3} ; \frac{4}{6}$

Answer:

e $\frac{2}{4} ; \frac{2}{6} ; \frac{6}{8}$

Answer:

f $\frac{3}{4} ; \frac{3}{7} ; \frac{1}{3} ; \frac{4}{8}$

Answer:

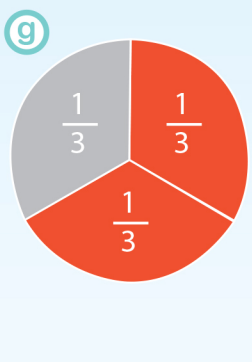
g $\frac{1}{2} ; \frac{1}{4} ; \frac{6}{7} ; \frac{3}{8}$

Answer:

Activity 3

Complete the following problems:

In fraction form, write out how many red sections there are out of the total number of sections. The first one has been done for you.



Teacher Tip

Let learners draw circle diagrams frequently, because it can be used to illustrate how to add fractions with the same denominator and equivalent fractions. Make use of area models, for example circles cut into fraction pieces or diagrams of pies, rectangles or other geometric shapes divided into fraction pieces (paper folding), fractions using square or dotted grid paper and geoboards.

