

Give me 5
Times Table Focus!

$3 \times 6 =$

$5 \times 7 =$

$8 \times 7 =$

$6 \times 48 =$

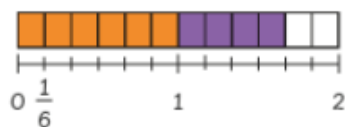
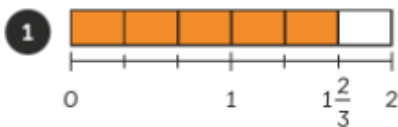
$9 \times 71 =$

In Focus

How many $\frac{1}{6}$ l cups can we fill with $1\frac{2}{3}$ l of water?

$$\frac{1}{6}$$

Let's Learn



1 = 6 sixths $\frac{2}{3} = 4$ sixths

$$1\frac{2}{3} = 10 \text{ sixths}$$

We can fill 10 $\frac{1}{6}$ cups.



$$\frac{10}{6}$$

Using a number line can really help us

This is called an improper fraction

The numerator (number on the top) is bigger than the denominator (number on the bottom)

Improper fractions are more than a whole

What if the cup has a capacity of $\frac{1}{3}$ l ?

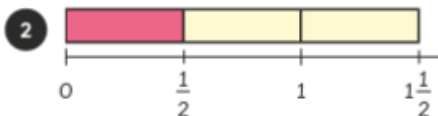
$$1 = 3 \text{ thirds} \quad \frac{2}{3} = 2 \text{ thirds}$$

$$1\frac{2}{3} = 5 \text{ thirds}$$

$$\frac{10}{6} = \frac{5}{3}$$

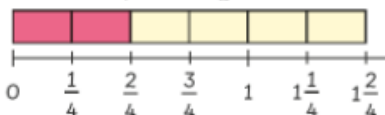
We can fill 5  cups.

$$\frac{10}{6} \xrightarrow{\div 2} \frac{5}{3}$$



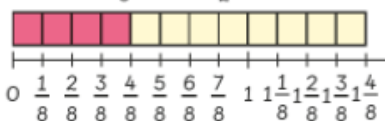
$$1\frac{1}{2} = 3 \text{ halves}$$

How many $\frac{1}{4}$ s make $1\frac{1}{2}$?



$$1\frac{1}{2} = 6 \text{ quarters}$$

How many $\frac{1}{8}$ s make $1\frac{1}{2}$?



$$1\frac{1}{2} = 12 \text{ eighths}$$



$$3 \text{ halves} = \frac{3}{2}$$



$$6 \text{ quarters} = \frac{6}{4}$$



$$12 \text{ eighths} = \frac{12}{8}$$

$$\begin{array}{c} \div 4 \\ \frac{12}{8} = \frac{3}{2} \\ \div 4 \end{array}$$

8 smaller parts become
2 larger parts.



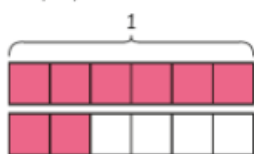
$$\begin{array}{c} \div 2 \\ \frac{6}{4} = \frac{3}{2} \\ \div 2 \end{array}$$

4 smaller parts become
2 larger parts.



$$\frac{12}{8} = \frac{6}{4} = \frac{3}{2}$$

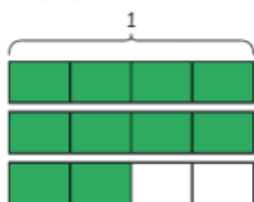
$\frac{3}{2}$ is in the simplest form.

Guided Practice**1** Simplify.

$$\frac{8}{6} = \square$$



8 sixths

2 Simplify.

$$\frac{10}{4} = \square$$



10 quarters

3 Simplify each fraction that is not in its simplest form.

(a) $\frac{6}{12}$

(b) $\frac{15}{10}$

(c) $\frac{18}{8}$


(d) $\frac{9}{7}$

Worksheet 7


Simplifying Improper Fractions

1 Simplify.

(a) $\frac{15}{9} = \boxed{}$



(b) $\frac{20}{6} = \boxed{}$



2 Write each improper fraction in its simplest form.

(a) $\frac{22}{10} = \boxed{}$

$\div \boxed{}$

$\frac{22}{10} = \frac{\boxed{}}{\boxed{}}$

$\div \boxed{}$

(b) $\frac{30}{9} = \boxed{}$

$\div \boxed{}$

$\frac{30}{9} = \frac{\boxed{}}{\boxed{}}$

$\div \boxed{}$

3 Circle the improper fractions that are in their simplest forms.

$$\frac{12}{5}$$

$$\frac{15}{9}$$

$$\frac{27}{8}$$

$$\frac{15}{4}$$

$$\frac{33}{6}$$

$$\frac{22}{7}$$

$$\frac{15}{12}$$

$$\frac{24}{10}$$

4 Match each improper fraction with its simplest form.

$$\frac{14}{8}$$

•

•

$$\frac{7}{3}$$

$$\frac{26}{6}$$

•

•

$$\frac{7}{4}$$

$$\frac{18}{10}$$

•

•

$$\frac{9}{5}$$

$$\frac{21}{9}$$

•

•

$$\frac{13}{3}$$

$$\frac{30}{4}$$

•

•

$$\frac{11}{6}$$

$$\frac{22}{12}$$

•

•

$$\frac{15}{2}$$

Simplifying Improper Fractions

1 Simplify.

(a) $\frac{15}{9} = \frac{5}{3}$



(b) $\frac{20}{6} = \frac{10}{3}$

**2** Write each improper fraction in its simplest form.

(a) $\frac{22}{10} = \frac{11}{5}$

$\div \frac{2}{2}$

$\frac{22}{10} = \frac{11}{5}$

$\div \frac{2}{2}$

(b) $\frac{30}{9} = \frac{10}{3}$

$\div \frac{3}{3}$

$\frac{30}{9} = \frac{10}{3}$

$\div \frac{3}{3}$

3 Circle the improper fractions that are in their simplest forms.

$\frac{12}{5}$

$\frac{15}{9}$

$\frac{27}{8}$

$\frac{15}{4}$

$\frac{33}{6}$

$\frac{22}{7}$

$\frac{15}{12}$

$\frac{24}{10}$

4 Match each improper fraction with its simplest form.

$\frac{14}{8}$

$\frac{26}{6}$

$\frac{18}{10}$

$\frac{21}{9}$

$\frac{30}{4}$

$\frac{22}{12}$

$\frac{7}{3}$

$\frac{7}{4}$

$\frac{9}{5}$

$\frac{13}{3}$



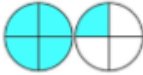


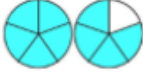
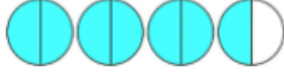
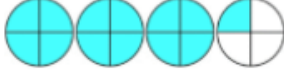




$\frac{11}{6}$

$\frac{15}{2}$

Challenge


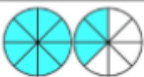
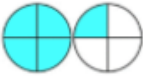


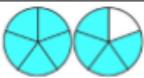
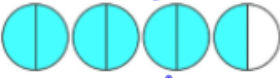
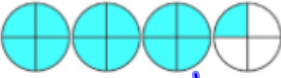
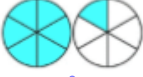

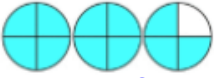
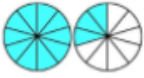
Can you convert these improper fractions into mixed numbers?

Use the fraction diagrams to work out the mixed numbers. The first one is done for you.

1)  $\frac{7}{3} = 2 \frac{1}{3}$	7)  $\frac{11}{8} =$
2)  $\frac{5}{4} =$	8)  $\frac{8}{3} =$
3)  $\frac{12}{5} =$	9)  $\frac{9}{5} =$
4)  $\frac{7}{2} =$	10)  $\frac{13}{4} =$
5)  $\frac{7}{6} =$	11)  $\frac{17}{6} =$
6)  $\frac{11}{4} =$	12)  $\frac{13}{10} =$

Challenge Answers

Use the fraction diagrams to work out the mixed numbers. The first one is done for you.

1)  $\frac{7}{3} = 2 \frac{1}{3}$	7)  $\frac{11}{8} = 1 \frac{3}{8}$
2)  $\frac{5}{4} = 1 \frac{1}{4}$	8)  $\frac{8}{3} = 2 \frac{2}{3}$
3)  $\frac{12}{5} = 2 \frac{2}{5}$	9)  $\frac{9}{5} = 1 \frac{4}{5}$
4)  $\frac{7}{2} = 3 \frac{1}{2}$	10)  $\frac{13}{4} = 3 \frac{1}{4}$
5)  $\frac{7}{6} = 1 \frac{1}{6}$	11)  $\frac{17}{6} = 2 \frac{5}{6}$
6)  $\frac{11}{4} = 2 \frac{3}{4}$	12)  $\frac{13}{10} = 1 \frac{3}{10}$