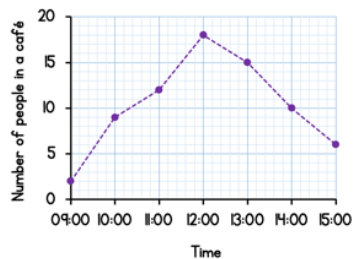


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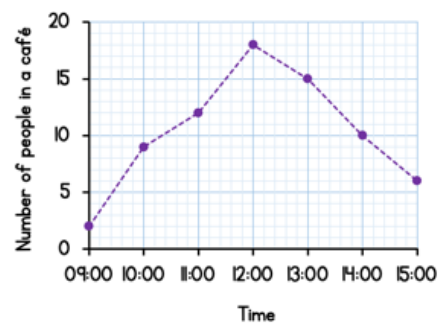
L.O: To convert mixed numbers and improper fraction

- 1) What is 5 squared?
- 2) Find the first six multiples of 7
- 3) Is it possible to tell how many people were in the café at 10:30?



- 4) Work out $\frac{3}{11} + \frac{6}{11} + \frac{2}{11}$

- 1) What is 5 squared? 25
- 2) Find the first six multiples of 7
7, 14, 21, 28, 35, 42
- 3) Is it possible to tell how many people were in the café at 10:30?
No - there is no marker at 10:30



- 4) Work out $\frac{3}{11} + \frac{6}{11} + \frac{2}{11}$ 1

What is a mixed number?

I do

A mixed number is a whole number, and a proper fraction represented together. A mixed number is formed by combining three parts: a whole number, a numerator, and a denominator.

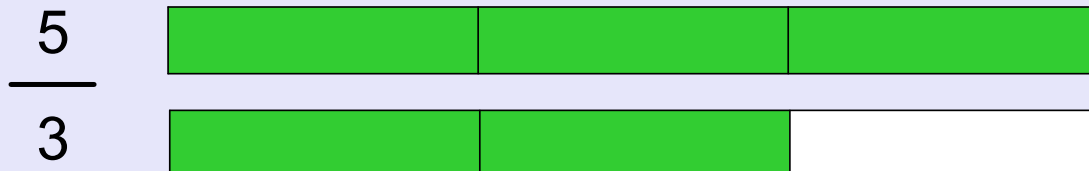
$$1 \frac{2}{3}$$



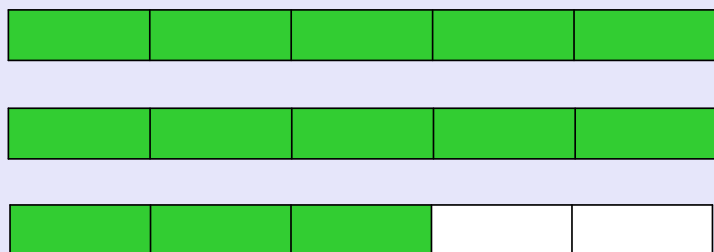
What is an improper fraction

I do

An improper fraction is a fraction in which the numerator (top number) is greater than or equal to the denominator (bottom number).



Change the mixed number into a improper fraction



$$2 \frac{3}{5} =$$

I do



$$\begin{array}{l} 2 \frac{3}{5} \\ \text{---} \end{array} \quad \begin{array}{l} 5 \times 2 = 10 \\ 10 + 3 = 13 \\ \underline{\underline{13}} \end{array} \quad \begin{array}{l} 13 \\ \text{---} \\ 5 \end{array}$$

Diagram illustrating the conversion of the mixed number $2 \frac{3}{5}$ to the improper fraction $\frac{13}{5}$. A green arrow connects the whole number 2 to the multiplication step $5 \times 2 = 10$. A black arrow connects the denominator 5 to the same multiplication step. Another black arrow connects the result 10 to the addition step $10 + 3 = 13$. A red arrow connects the numerator 3 to the same addition step. A large black arrow connects the final result $\frac{13}{5}$ back to the original mixed number.

Key Vocabulary

- numerator
- denominator
- equivalent
- mixed number
- improper fraction

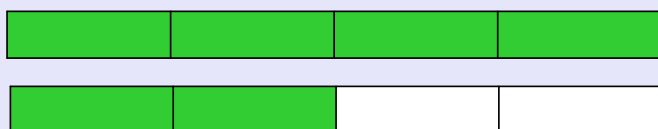


Change the mixed number into a
improper fraction

We do

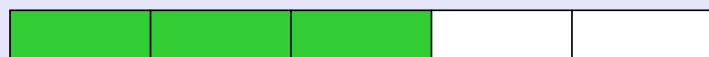


$$2\frac{1}{3}$$



$$1\frac{2}{4}$$

Change the mixed number into a
improper fraction



$$\frac{13}{5} =$$

I do



Change the mixed number into a improper fraction

I do

$$\frac{9}{4} = \boxed{}$$

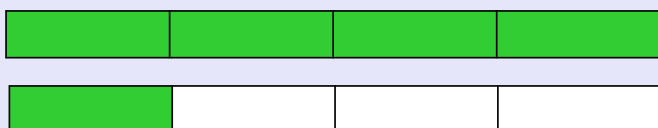
$4 \times 2 = 8$

$8 + 1 = 9$

$2 \frac{1}{4}$

$9 - 8 = 1$

Change the mixed number into a
improper fraction



$$\frac{5}{4}$$

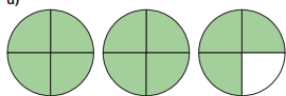


$$\frac{8}{3}$$

We do

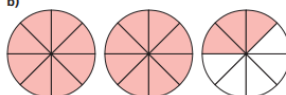
Convert the mixed numbers to improper fractions.

a)



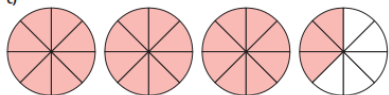
$$2\frac{3}{4} = \frac{\boxed{}}{4}$$

b)



$$2\frac{3}{8} = \frac{\boxed{}}{8}$$

c)



$$3\frac{3}{8} = \frac{\boxed{}}{8}$$

Question 2: Change these mixed numbers into improper fractions

(a) $2\frac{1}{5}$

(b) $3\frac{1}{2}$

(c) $1\frac{3}{4}$

(d) $3\frac{2}{3}$

(e) $1\frac{2}{5}$

(f) $2\frac{4}{7}$

(g) $1\frac{1}{3}$

(h) $2\frac{3}{10}$

(i) $4\frac{3}{4}$

(j) $1\frac{7}{12}$

Change these improper fractions into mixed numbers

(a) $\frac{7}{3}$

(b) $\frac{7}{5}$

(c) $\frac{5}{2}$

(d) $\frac{8}{7}$

(e) $\frac{5}{3}$

(f) $\frac{10}{3}$

(g) $\frac{23}{2}$

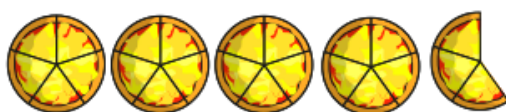
(h) $\frac{11}{4}$

(i) $\frac{11}{8}$

(j) $\frac{9}{4}$

You Do

Here are 4 whole pizzas and $\frac{3}{5}$ of a pizza.



I do

convert this as an improper fraction



$$5 + 5 + 5 + 5 + 3 = 23$$

$$\frac{23}{5}$$

or

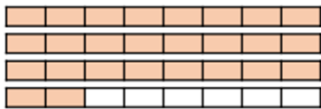
$$5 \times 4 = 20$$

$$20 + 3 = 23$$

Karl says,



$3\frac{2}{8}$ as an improper fraction is $\frac{26}{8}$.



Do you agree with Karl?
Explain your answer.

Oscar has a mixed number.

- A. It includes 3 wholes.
- B. The denominator is 3×4
- C. The numerator is a prime number between 5 and 10.

What could Oscar's fraction be when it is converted to an improper fraction?

Find one possibility.

Use the clues to find the missing digits.

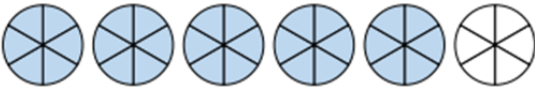
A factor of 8.

5

6

These 2 digits add together to make 5.

=



Show your working and complete the image.

Sue says,



$3\frac{6}{11}$ as an improper fraction is $\frac{39}{11}$.

Do you agree with Sue?
Explain your answer.

Whitney is converting mixed numbers to improper fractions.

$4\frac{1}{7} = \frac{28}{7}$

Do you agree with Whitney?
Explain your answer.

e-mail your completed work to
y5@claytonce.bradford.sch.uk
to be marked