

Exercise 1



1. Copy and complete the following :-

(a) $\frac{15}{2}$ really means $15 \div 2 \Rightarrow 2 \overline{)15}$ (remainder ...) $\Rightarrow 7 \frac{\dots}{2}$.

(b) $\frac{23}{6}$ really means $23 \div 6 \Rightarrow 6 \overline{)23}$ (remainder ...) $\Rightarrow 3 \frac{\dots}{6}$.

(c) $\frac{13}{9}$ really means $13 \div \dots \Rightarrow \dots \overline{)13}$ (remainder ...) $\Rightarrow \dots \frac{\dots}{9}$.

(d) $\frac{17}{5}$ really means $\dots \div \dots \Rightarrow 5 \overline{)\dots}$ (remainder ...) $\Rightarrow \dots \frac{\dots}{5}$.

2. In a similar way, change the following top-heavy fractions to mixed numbers :-

- (a) $\frac{11}{3}$ (b) $\frac{21}{4}$ (c) $\frac{29}{6}$ (d) $\frac{9}{2}$
 (e) $\frac{32}{5}$ (f) $\frac{65}{8}$ (g) $\frac{73}{10}$ (h) $\frac{31}{20}$

3. (a) Four boys decide to share 11 bars of chocolate evenly.

What will each boy receive (as a mixed number) ?

(b) 23 kg of potatoes are packed evenly into 5 bags.

What weight of potatoes goes into each bag ?

(c) A container holds 17 litres of water. An equal quantity of water is poured into 6 cups such that each holds the same amount.

How much water will be in each cup ?



4. Copy and complete :- $\frac{20}{6} = 20 \div 6 = 3 \frac{2}{6} = 3 \frac{1}{3}$ (\leftarrow simplified).

5. Change each of the following to mixed numbers and simplify where possible :-

- (a) $\frac{15}{6}$ (b) $\frac{18}{4}$ (c) $\frac{18}{8}$ (d) $\frac{32}{10}$
 (e) $\frac{30}{9}$ (f) $\frac{38}{8}$ (g) $\frac{45}{20}$ (h) $\frac{175}{100}$

6. This diagram represents $2 \frac{3}{4}$ pizzas.

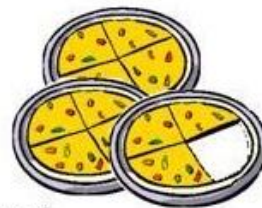
(a) How many " $\frac{1}{4}$ " pizza slices do you get from 1 pie ?

(b) How many " $\frac{1}{4}$ " pizza slices do you get from 2 pies ?

(c) How many " $\frac{1}{4}$ " pizza slices do you get from $\frac{3}{4}$ of a pie ?

(d) How many " $\frac{1}{4}$ " pizza slices is this altogether from the $2 \frac{3}{4}$ pizzas ?

(e) Write this as $2 \frac{3}{4} = \frac{\dots}{4}$.



7. (a) A piece of rope was $6\frac{4}{5}$ metres long.
A piece measuring $3\frac{1}{5}$ was cut off.

What length of rope remained ?



- (b) 2 jugs of water were poured into an empty basin.
The first jug held $2\frac{3}{4}$ litres and the second held $1\frac{3}{4}$ litres.
How much water was in the basin in total ?

- (c) Of the $10\frac{5}{6}$ kilometres from her house to the shops,
Lucy had cycled $7\frac{1}{6}$ kilometres.
How much further has Lucy to cycle to reach the shops ?



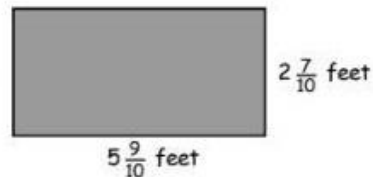
- (d) George ate $\frac{3}{5}$ of a pizza, Billy ate $\frac{4}{5}$ and Amanda ate $\frac{2}{5}$.
How much had they eaten altogether ?



- (e) Bunty weighed $42\frac{6}{7}$ kilograms.
She went on a diet and lost $4\frac{3}{7}$ kilograms.
What is Bunty's new weight ?

8. A table measures $5\frac{9}{10}$ feet long by $2\frac{7}{10}$ feet wide.

- (a) By how much is the length bigger than the breadth ?
(b) Calculate the **perimeter** of the table top.



9. A lorry weighs $3\frac{7}{8}$ of a tonne. Crates are loaded onto the lorry.



Each crate weighs $\frac{5}{8}$ tonnes.

What is the total weight of the lorry carrying a load of :-

- (a) 1 crate (b) 2 crates (c) 3 crates ?

10. Look at the picture of the hammer.
Calculate the length of the rubber handle.

