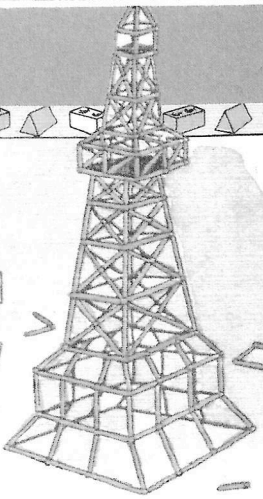
27 Faulty towers

Fractions: fraction of a whole number

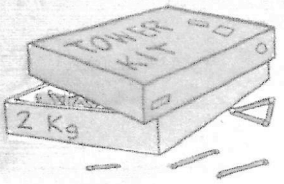


Plastic tubes make up one quarter of the weight of a Tower kit.

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

$= \frac{1}{4}$ of 2000 g

= 500 g The tubes weigh **500 g**.

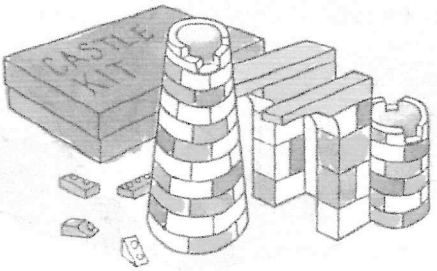


1 Find

(a) $\frac{1}{4}$ of 3 kg (in grams) (b) $\frac{1}{5}$ of 4 kg (in grams) (c) $\frac{1}{6}$ of 3 kg (in grams)

(d) $\frac{1}{3}$ of 6 m (in centimetres) (e) $\frac{1}{10}$ of £9 (in pence) (f) $\frac{1}{8}$ of 2 h (in minutes)

A new machine packs some kits wrongly. Three eighths of 40 Tower kits are faulty.



To find $\frac{3}{8}$ of 40 ⟶ $\frac{1}{8}$ of 40 = 5

$\frac{3}{8}$ of 40 = 3 × 5 = 15

15 kits are faulty.

2 Find the number of faulty kits in each batch.

	Fraction of the kits faulty	Number of kits in each batch
Tower kits	three eighths	56
Castle kits	two thirds	60
Fort kits	four fifths	45
Palace kits	seven tenths	30

3 (a) $\frac{5}{8}$ of 400 (b) $\frac{2}{5}$ of 225 (c) $\frac{2}{3}$ of 195

(d) $\frac{3}{4}$ of 2 kg (in grams) (e) $\frac{5}{6}$ of £3 (in pence) (f) $\frac{3}{5}$ of 2 h (in minutes)

To find $\frac{3}{7}$ of 4564,

Enter 4564. Press ÷ 7 × 3 = to give 1956.

4 (a) $\frac{3}{7}$ of 4683 (b) $\frac{7}{8}$ of 4088 (c) $\frac{5}{9}$ of 9090 (d) $\frac{3}{10}$ of 12 210 (e) $\frac{11}{20}$ of 13 440

5 There are 1800 bits in a Castle kit. $\frac{1}{8}$ of the bits are red, $\frac{5}{12}$ are blue. $\frac{5}{24}$ are yellow and the rest are white.

(a) How many bits are white?

(b) What **fraction** of the bits in the Castle kit are white?

Ask your teacher what to do next.