

Fraction of an Amount

Example

If $\frac{3}{8}$ of a shipping container holds 2100 identical cartons, how many cartons will fit into:

a $\frac{5}{8}$ of the container

b the whole container?

$\frac{3}{8}$ of the container holds 2100 cartons.

$\therefore \frac{1}{8}$ of the container holds $2100 \div 3 = 700$ cartons.

a So, $\frac{5}{8}$ holds 700×5
 $= 3500$ cartons

b The whole is $\frac{8}{8}$ which is 700×8
 $= 5600$ cartons

- 1 Last week we picked $\frac{1}{3}$ of our grapes and this week we picked $\frac{1}{4}$ of them. So far we have picked 3682 kg of grapes. What is the total weight of grapes we expect to pick?

- 2 Alfredo sent $\frac{2}{5}$ of his potato crop to market last week. This week he sent $\frac{2}{3}$ of the remainder.
- a What fraction of his crop has now gone to market?
- b If he has 860 kg remaining, what was the original weight of the crop?

a.

b.

- 3 Annika pays $\frac{2}{25}$ of her weekly income into a retirement fund. If she pays £42 into the retirement fund, what is her:

a weekly income

b annual income?

a.

b.



4 Jamil spent $\frac{1}{4}$ of his weekly salary on rent, $\frac{1}{5}$ on food, and $\frac{1}{6}$ on clothing and entertainment. The remaining money was banked.

- a What fraction of Jamil's money was banked?
- b If he banked \$138.00, what is his weekly salary?
- c How much did Jamil spend on food?

a.

b.

c.

5 In autumn a tree starts to shed its leaves. $\frac{2}{5}$ of the leaves fall off in the first week, $\frac{1}{2}$ of those remaining fall off in the second week, and $\frac{2}{3}$ of those remaining fall off in the third week. 85 leaves now remain.

- a What fraction of leaves have fallen off at the end of:
 - i the second week
 - ii the third week?
- b How many leaves did the tree have to start with?

a.i

a.ii

b.

