1

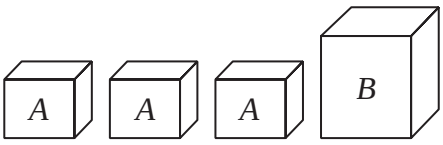

Diagram **NOT** accurately drawn

The diagram shows four parcels.
The total weight of the four parcels is 8.3 kg.

The weight of the parcel labelled *B* is 3.2 kg.
Each of the three parcels labelled *A* have the same weight.

(a) Work out the weight of each of the parcels labelled *A*.

$8.3 = 3A + B$
$8.3 = 3A + 3.2$ ← $B = 3.2$
-3.2 ↓
$5.1 = 3A$ (1)
$1.7 = A$ ← $\div 3$

1.7 (1) ..... kg

(2)

Here are another three parcels.

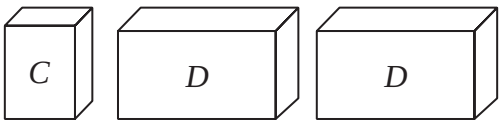

Diagram **NOT** accurately drawn

The total weight of the three parcels is 9.45 kg.

Each of the two parcels labelled *D* have the same weight.

The weight of each parcel labelled *D* is 3× the weight of the parcel labelled *C*.

(b) Work out the weight of the parcel labelled *C*.

$9.45 = 2D + C$
$9.45 = 2(3c) + C$ ← $D = 3 \times c$ so replace D with 3c
$9.45 = 6c + C$
$9.45 = 7c$ (1)
$\div 7$ ↓
$1.35 = C$

1.35 (1) ..... kg

(2)

(Total for Question 1 is 4 marks)

2 3 cups each contain 200 millilitres of water.
4 jugs each contain x millilitres of water.

Emma pours all the water from the 3 cups and the 4 jugs into a container.
The total amount of water that Emma pours into the container from the 3 cups and 4 jugs is 3.5 litres.

Work out the value of x

$3 \times 200 + 4 \times x = 3500$ (1)

(1)

$600 + 4x = 3500$

$4x = 2900$

$x = \frac{2900}{4}$ (1)

$= 725$ (1)

$x =$ 725

(Total for Question 2 is 4 marks)

3 Larry is a delivery man.

He has 7 parcels to deliver.
The mean weight of the 7 parcels is 2.7 kg

Larry delivers 3 of the parcels.
Each of these 3 parcels has a weight of W kg

The mean weight of the other 4 parcels is 3.3 kg

Work out the value of W

$7 \times 2.7 = 18.9$ (1)

$4 \times 3.3 = 13.2$

$3W = 18.9 - 13.2$

$3W = 5.7$ (1)

$W = \frac{5.7}{3}$

$= 1.9$ (1)

$W =$ 1.9

(Total for Question 3 is 3 marks)

4 Alisa, Jena and Mikael each pick cucumbers.

Alisa picks C cucumbers.
Jena picks 5 fewer cucumbers than Alisa.
Mikael picks twice as many cucumbers as Alisa.

The total number of cucumbers picked by Alisa, Jena and Mikael is T

Find a formula for T in terms of C
Give your formula in its simplest form.

Alisa : C

Jena : C - 5 (1)

Mikael : 2C

T = C + C - 5 + 2C (1)

T = 4C - 5 (1)

T = 4C - 5

.....

(Total for Question 4 is 3 marks)

There are 8 slices of cheese in each small pack of cheese.
There are 20 slices of cheese in each large pack of cheese.

Afreen buys h small packs of cheese and j large packs of cheese.
She buys a total of T slices of cheese.

5 (c) Write down a formula for T in terms of h and j

$T = 8h + 20j$ (3)

$T = 8h + 20j$

(3)

(Total for Question 5 is 3 marks)