Solving Word Problems: Length, Mass and Volume
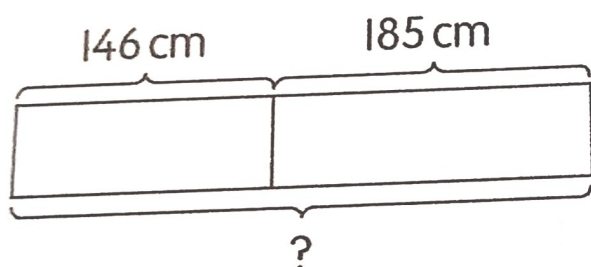
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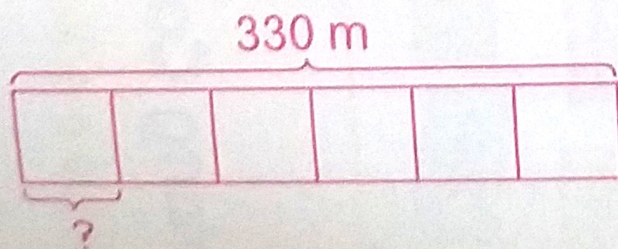
[Practice 1] One-step word problems

Draw models to help you solve these word problems.

1 Sophie is 146 cm tall.
Kerry is 185 cm tall.
What is their total height?
Write your answer in metres and centimetres.
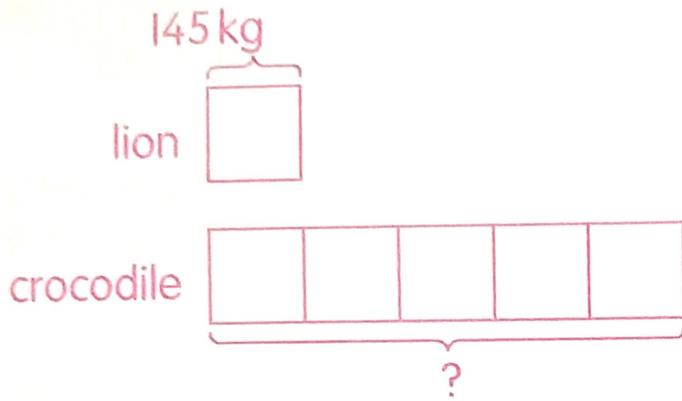

146 cm   185 cm

?

$146 + 185 = 331$
$331 \text{ cm} = 3 \text{ m } 31 \text{ cm}$
Their total height is 3 m 31 cm.

2 Harry is training for his school sports day.
He runs round his school track 6 times a day.
If he runs 330 m a day, what is the length of the track?

330 m
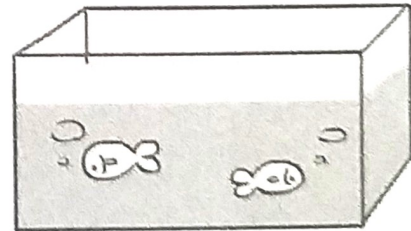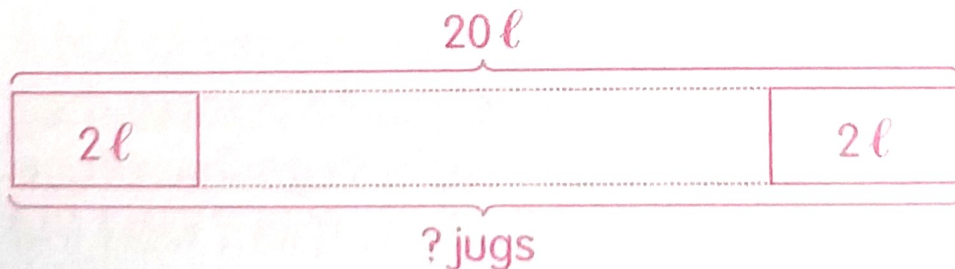
?

$330 \div 6 = 55$
The length of the track is 55 m.

3 One of the lions in the wildlife park has a mass of 145 kg.
The mass of one of the crocodiles is 5 times as much.
What is the mass of the crocodile?

145 kg

lion

crocodile

?

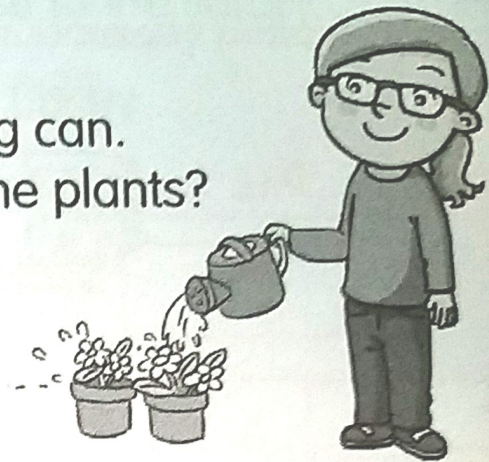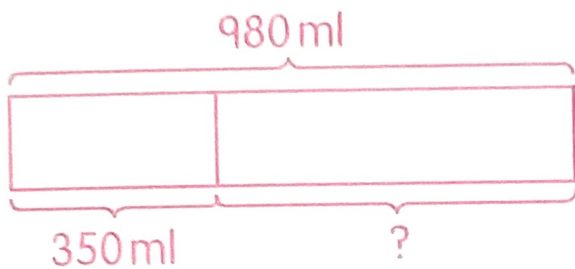$5 \times 145 = 725$
The mass of the crocodile is 725 kg.

4 Tai has a fish tank with a capacity of 20 ℓ.
He uses a 2 ℓ jug to fill up the fish tank.
How many jugs of water does he use to fill up the fish tank?

20 ℓ

2 ℓ   2 ℓ

? jugs

$20 \div 2 = 10$
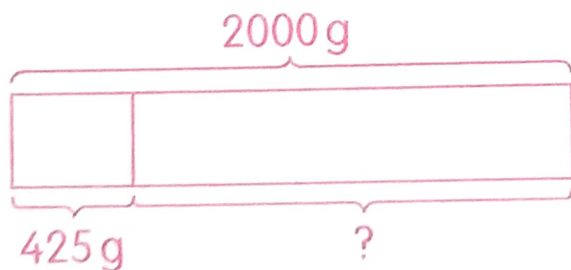He uses 10 jugs of water to fill up the fish tank.

5 A watering can contains 980 ml of water.
Ella uses some to water the plants.
There is 350 ml of water left in the watering can.
How much water does she use to water the plants?

980 ml

350 ml   ?

$980 - 350 = 630$ ml
She uses 630 ml of water to water the plants.

6 Hardeep's dad has a 2000 g bag of sugar.
He uses 425 g of it.
What is the mass of the sugar that is left?
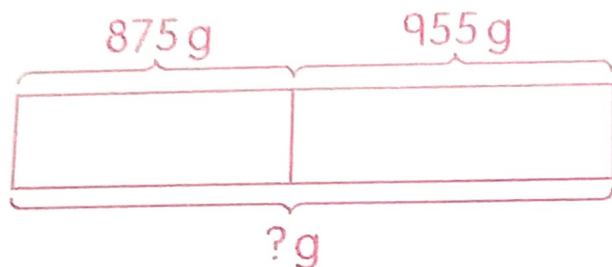Write your answer in kilograms and grams.

Sugar

2000 g

425 g   ?

$2000 - 425 = 1575$
1575 g $= 1$ kg 575 g
1 kg 575 g of sugar is left.

7 A chef cooks 875 g of rice on Monday.
She cooks 955 g of rice on Tuesday.
What is the total mass of rice she cooks?
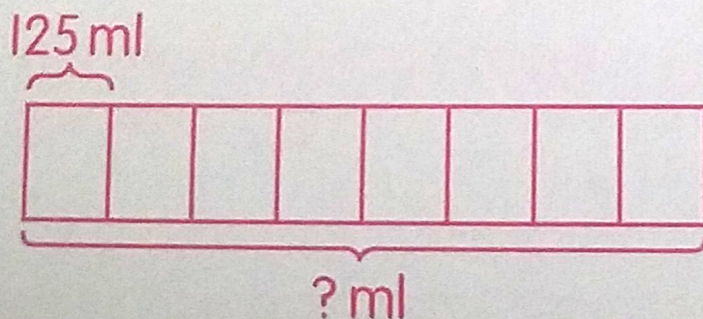Write your answer in kilograms and grams.

875 g	955 g

?g

$875 + 955 = 1830$
$1830 g = 1 kg 830 g$
The total mass of rice she cooks is 1 kg 830 g.

8 Mr Ali makes enough tea for 8 cups.
Each cup contains 125 ml of tea.
He pours all the tea into a flask.
How much tea is in the flask?

125 ml

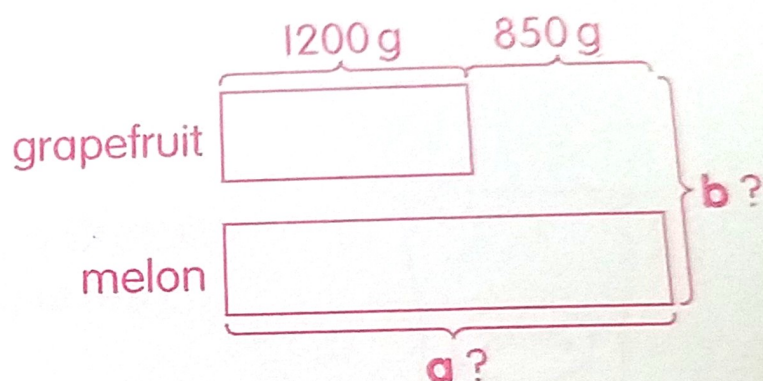|							

? ml

$8 \times 125 = 1000$
There is 1000 ml or 1 ℓ of tea in the flask.

Two-step word problems

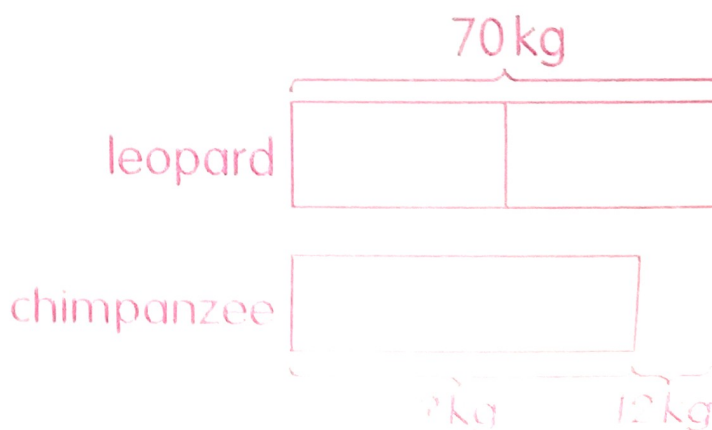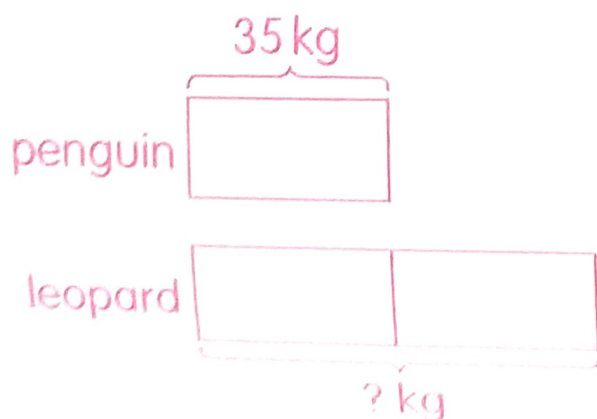Draw models to help you solve these word problems.

1 The mass of a grapefruit is 1200 g.
A melon is 850 g heavier than the grapefruit.
  a What is the mass of the melon?
  b What is the total mass of the two pieces of fruit?
    Write your answer in kilograms and grams.

  a $1200 + 850 = 2050$
    The mass of the melon is 2050 g.

  b $2050 + 1200 = 3250$
    $3250 g = 3 kg 250 g$
    The total mass of the two pieces
    of fruit is 3 kg 250 g.

1200 g   850 g

grapefruit

melon

a ?

b ?

2 The vet measures the mass of the animals at a wildlife park.
The penguin has a mass of 35 kg.
The leopard is twice as heavy as the penguin.
The chimpanzee is 12 kg lighter than the leopard.
  a What is the leopard's mass?
  b What is the chimpanzee's mass?

35 kg

penguin

leopard

? kg

70 kg

leopard

chimpanzee

? kg   12 kg

  a $2 \times 35 = 70$
    The leopard's mass is 70 kg.

  b $70 - 12 = 58$
    The chimpanzee's mass is 58 kg.