

46 Combining lengths

Y3: Add and subtract lengths

T 1. Jack's pencil is 12 cm long. Skye's is 19 cm long.

What is:

- a) the combined length
- b) the difference in length of the pencils?

S 2. Find:

a) two pieces with a total length of 140 cm

A  40 cm

B  110 cm

C  85 cm

b) three pieces with a total length of 320 cm.

D  170 cm

E  55 cm

F  125 cm

3. Find:

- a) two pieces with a difference in length of 85 cm
- b) two **pairs** of pieces each with a difference of 15 cm.

D 4. Find two pairs that have the same total length.

5. What is the total length if all the pieces are laid out in a line?

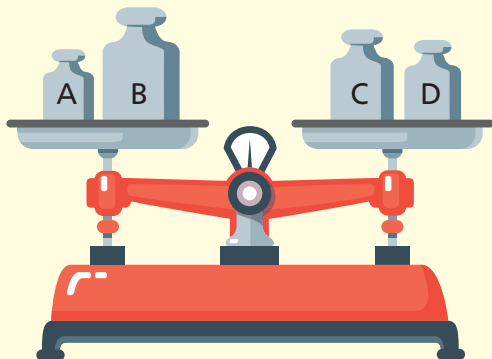
47 Balancing act

Y3: Add and subtract mass

- T** 1. Find the missing number.

$$45 + \square = 57 + 23$$

- S** 2. You have four weights: 38 g, 40 g, 43 g and 45 g. How can you make the pans balance?



3. You have three weights: 30 g, 60 g, and 80 g. If you can put two weights in each pan, what other weight do you need to make the pans balance?

Find three different answers.

- D** 4. Which four of these weights will make the pans balance?

20 g, 40 g, 70 g, 100 g, 120 g, 150 g

5. Find a way to make the pans balance, using all six weights.

48 Which is greater?

Y3: Solve problems
with measures

- T** 1. Oscar has a piece of string 13 cm long. Sophie's string is double that length. How long is it?

- S** 2. Which is the greater amount? Explain why.

A: 3
pieces of string
each 13 cm long or
2 pieces each 20 cm
long

B: 4 bottles each
holding 120 ml or
9 bottles each holding
50 ml

C: 8 pencils each
25 cm long or 10 pencils
each 20 cm long

- D** 3. Which is the greater amount? Can you explain why?

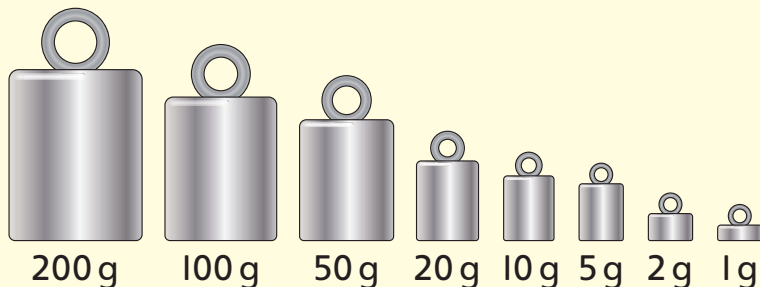
D: 6 pieces of
string each 60 cm or
4 pieces each 0.8 m
long

E:
8 parcels each
weighing 800 g or
4 parcels each
weighing 2 kg

49 Combining masses

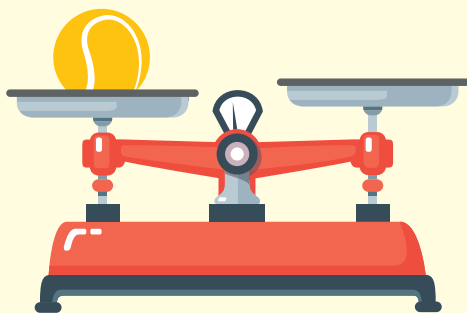
Y3: Add and subtract mass

- T** 1. What is the total of 10 g, 50 g, 2 g and 5 g?



- S** 2. The mass of the tennis ball is 75 g. You have several sets of weighing masses. Which can you put in the right pan to make it balance? Find five different ways to do this.

3. What if there were 4 tennis balls? Again, find five different ways.



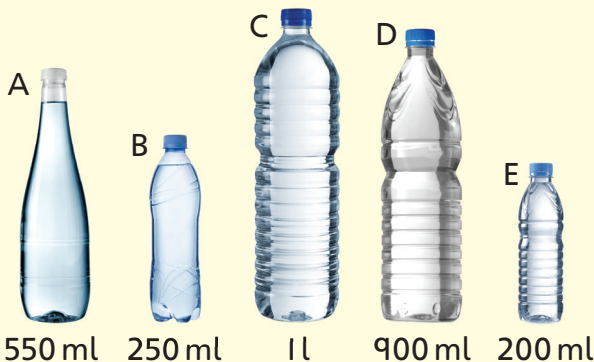
- D** 4. Noah finds that 2 tennis balls balances 10 marbles. How much does each marble weigh?
5. How many tennis balls would balance 30 marbles?

50 Bottled-up

Y3: Add and subtract volume/capacity

- T** 1. One bottle holds 200 ml and another holds 150 ml. What do they hold in total?

- S** 2. Find two bottles with a total capacity of:
- a) 800 ml
 - b) 1100 ml.



3. Find two bottles with a difference of:
- a) 650 ml.
 - b) 450 ml.

- D** 4. Which gives the greater amount of water?

2 bottles of D

2 bottles of A, 2 of B and one of E

5. If all the water from all the bottles was combined, is there enough for a class of 30 to each have 100 ml?

51 Measures mix-up

Y3: Measure using the appropriate tools and units

- T** 1. Is your classroom likely to be 7 cm, 7 m or 7 km long?
- S** 2. Which statements cannot be right? Explain why.



3. Swap the measures and write them out again, so the statements make sense.

- D** 4. Identify four things in your classroom:

One about 50 cm tall, one weighing about 300 g, one with a capacity of about 1 litre, one weighing about 2 kg.

Write a sentence for each, but mix up the units. Ask a partner to correct them.

52 Sponsored walk

Y3: Compare times,
solve problems
with measure

T 1. It is 9:30 am. What time will it be 2 hours and 10 minutes later?

S Some children did a 10 km sponsored walk. Here are their times.

Liam: 3 hours
40 minutes

Jess: $3\frac{1}{4}$ hours

Emma: 200 minutes

Gianni: $4\frac{1}{2}$ hours

Raki: $3\frac{3}{4}$ hours



2. Put the children in the order they finished, with the fastest child first.

3. The walk started at 8:30 am, who finished after midday?

D 4. The next year, each child did the walk 20 minutes faster! What are their new times, in hours and minutes?