

Can I solve problems involving length?

Jack, Tommy and Alex took part in a hop, skip and jump competition.

Their distances are shown in the table below.

Complete the table to show the total distance each child travelled.

Name	Hop	Skip	Jump	Total
Jack	80 cm	60 cm	1 m 20 cm	2m 60cm
Tommy	70 cm	1 m	1 m 10 cm	2m 80cm
Alex	75 cm	75 cm	1 m	2m 50cm

How much longer was Jack's jump compared to his skip? $120\text{cm} - 60\text{cm} = 60\text{cm}$

What's the difference between the longest jump and the shortest hop? $120\text{cm} - 70\text{cm} = 50\text{cm}$

If Jack did 3 hops, 2 skips and a jump how far did he travel in total?

$$\begin{array}{r} 80 \\ \times 3 \\ \hline 240 \end{array} \text{cm}$$

$$60 \times 2 = 120\text{cm}$$

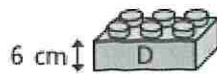
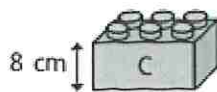
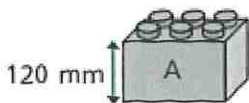
$$\begin{array}{r} 120 \\ 120 \\ \hline 240 \\ 480 \end{array}$$

$$480\text{cm} = 4\text{m } 80\text{cm}$$

Esther builds a tower using some bricks.

Her tower is 24 cm tall.

Which bricks could she have used?



How many different solutions can you find?

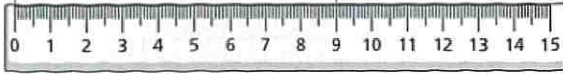
$$\begin{aligned} 3C &= 3 \times 8\text{cm} = 24\text{cm} \\ 2A &= 2 \times 12\text{cm} = 24\text{cm} \\ 6B &= 6 \times 4\text{cm} = 24\text{cm} \\ 4D &= 4 \times 6\text{cm} = 24\text{cm} \end{aligned}$$

There are lots! Here are some!

$$2C + 2B$$

$$4B + C$$

$$2D + A$$



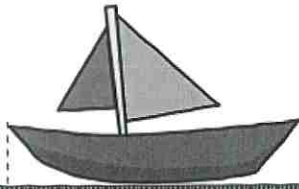
The toy car is mm long.

What is the total length of the car and the boat? (Be careful when you look at the boat!)

$$90 + 120 = 210 \text{ mm} = 21 \text{ cm}$$

What is the difference in length of the boat and the car? Give your answers in mm

$$120 - 90 = 30 \text{ mm}$$



$$17 - 5 = 12 \text{ cm} = 120 \text{ mm}$$

Nijah buys 5 m of ribbon.

She uses 78 cm of the ribbon to decorate a bag.

How much ribbon does she have left?



$$5 \text{ m} = 500 \text{ cm}$$

$$500 - 78 = 422 \text{ cm} \\ \text{or } 4 \text{ m } 22 \text{ cm}$$

Fill in the empty boxes so that each row and column adds up to 2 m.

50 cm	1 m	50 cm
1 m 15 cm	15 cm	70 cm
35 cm	85 cm	80 cm