True or False?

Which of the following statements are true which are false? Put a tick for the correct answer.

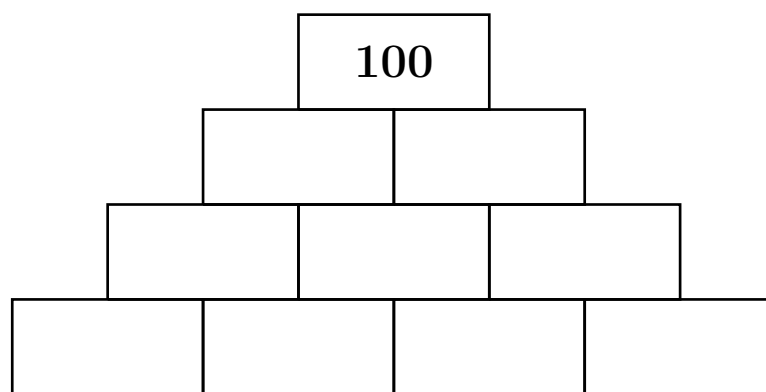| Statement	TRUE	FALSE
The Methodist Church is taller than 200cm		
The Thames is longer than 1000m		
The math club today lasts longer than 750min		
Every banana weighs 500g		
A litre water weighs 1 kg		
April, May and June have together 91 days		
100 Pounds (£) equal 1000 Pence		

Number walls II

Number walls are built according to the following rule: In every field is the sum of the two numbers underneath it.
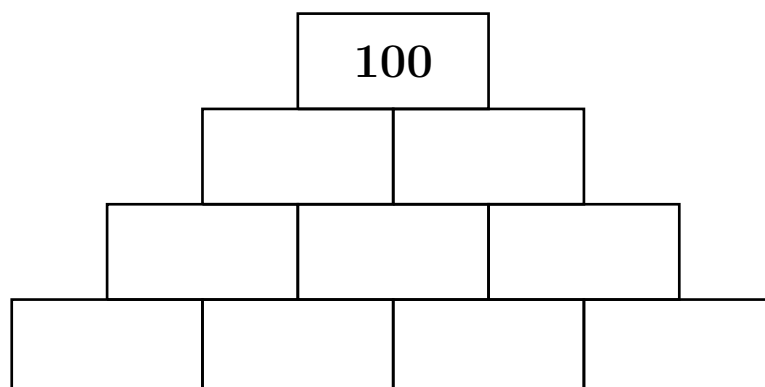
Example:

```
        ┌──────┐
        │  22  │
     ┌──┴──┬───┴──┐
     │ 12  │  10  │
 ┌───┴─┬───┴──┬───┴─┐
 │  5  │   7  │  3  │
 └─────┴──────┴─────┘
```
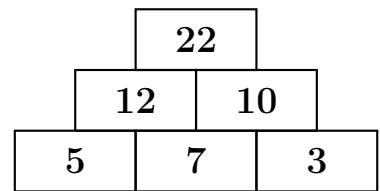
(a) Put suitable numbers into the number wall below with no number occurring twice.

```
        ┌──────┐
        │ 100  │
     ┌──┴──┬───┴──┐
     │     │      │
  ┌──┴──┬──┴───┬──┴──┐
  │     │      │     │
┌─┴───┬─┴────┬─┴───┬─┴──┐
│     │      │     │    │
└─────┴──────┴─────┴────┘
```

(b) Put suitable numbers into the number wall according to the following rule. Use for your solution only numbers from the times tables and no number occurs twice.

```
        ┌──────┐
        │ 100  │
     ┌──┴──┬───┴──┐
     │     │      │
  ┌──┴──┬──┴───┬──┴──┐
  │     │      │     │
┌─┴───┬─┴────┬─┴───┬─┴──┐
│     │      │     │    │
└─────┴──────┴─────┴────┘
```

Football match II

(a) Four football teams A, B, C, D play a tournament in which every team plays every other team exactly once. Write down all possible matches. Start like this: A against B

(b) A match ends 1:2. Write down all possible scores at break.

(c) Team A looses the tournament. What are the possible arrangements of 1st, 2nd and 3rd price? Write down all possibilities.

Note: If two teams have the same number of points or goals, they toss a coin so that no two teams have the same number of points in the end.

Stickers

Martin has 4 times as many stickers as Carline and he has 6 times as many stickers as Lucas. Tom has 4 stickers more than Martin and half as many as Samira who has 80.

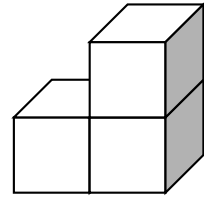(a) Fill in the numbers in the following table.

Name of child	Number of stickers
Caroline	
Lucas	
Martin	
Tom	
Samira	

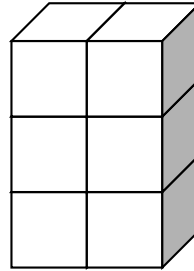(b) Is it possible to share out the stickers fairly among all 5 children?
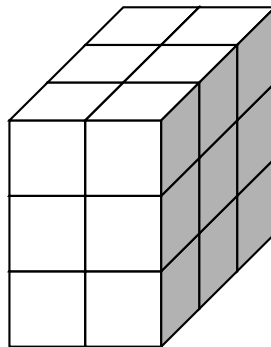
Cube triplets II

A cube triplet looks like this:
It consists of three cubes of the same size glued together
as in the picture.

(a) Can you the rectangular box out of such cube triplets? If yes, draw your
   solution into the box.

(b) Can you make the following box using cube triplets? Explain your answer.

(c) Can you make the following cube from cube triplets without leaving any
holes? Explain your answer.