

Choose a name (or a number) for your team:.....

Participants' Name	Height		
	cm	inches	varas*

(*) you must write it in cm, inches and “varas jaquesas” at the stop of the Cathedral. 1 inch=25.4 mm

Date: _ _ _ _ _

Temperature: _ _ _ _ _



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What is maths used for in everyday life?

You may wonder what connects the maths you do at school to the real world....

Let the answer to the end of the game



Let's start

Marking on this map

the places where we'll start:

△ PLAZA MARQUÉS DE LA CADENA

△ LA CATEDRAL

△ PLAZA DE SAN PEDRO

Check you've all the materials you need: tape measure, calculator, pen and paper.

LOOK AND FIND

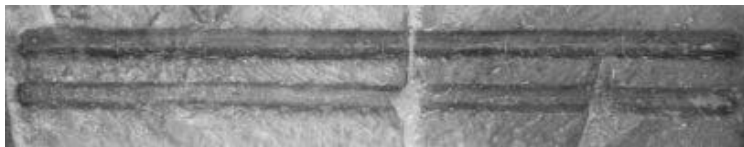
Find the following details in façades or other places in Jaca:

a) What polyhedron is the base of this fountain?

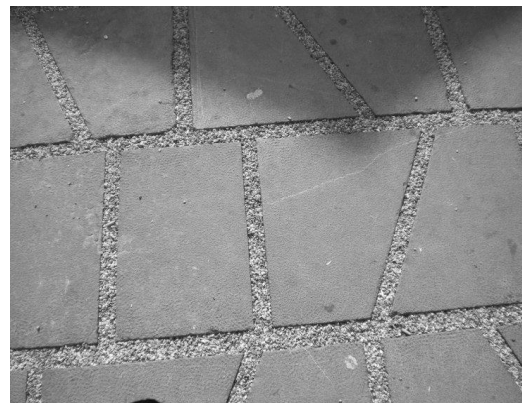


b) Where is this plaque? What is the elevation of Jaca?

c) What solid does this bell look like? Where is it?



d) What is this? Where have you found it?



e) Spot where these pictures have been taken. Write the name of the street where they are and write all the different shapes you can figure out in both of them.

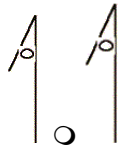
MEASURE AND CALCULATE

a') Calculate the area of the base in picture a

b') Calculate the elevation in ft and in cm.

c') measure the perimeter of the bell, in contact with the floor. What is the measure of the diameter?

Stop



PLAZA MARQUÉS DE LA CADENA

Write the time you've arrived:

🗨 **Look carefully** at the circular fountain in this square.

What solid does it look like? _____

How many cuboid stones did they need to build it? _____



Near this square there is a tower

What are the dimensions of this tower? Write it in meters and in feet.

You can't measure how high it is but you can estimate it, or figure it out...

Length:

Width:

Height (write an estimation):

Calculate the volume approximately in m^3 :





Look at this picture.

What is the scale of this picture? (you have to compare to the reality)

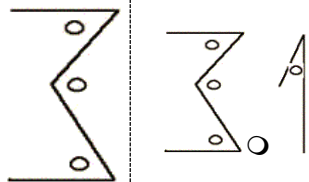
Solve this problem:

A metalsmith makes varas of silver to sell as decoration

- 💬 He needs 3 hours with his old machine to make one piece. How many pieces can he do in one day if he works 9 hours per day?
- 💬 He buys a machine to make the same piece in 2 hours, and his nephew helps him to work at the same time. How many pieces can they do in one work day?

Now it's the moment to measure all the components of the team and fill in the grid in the first page.

Stop



Here you can see some bins with a modern design. What solid is it?

Calculate the volume of one of these bins:



Plaza

De

San Pedro

How many plastic bottles of half a litre can you put inside?



Remember: $\frac{1}{2}$ litre = 500 cm^3

If you take the top away and you crash it before throwing it away, there would be room for more bottles, how many bottles you could put inside in this way?

Draw a design for a campaign to make people aware that it's an advantage to do it.

