



1) Here you can elevate yourself, under the supervision of eight hands. If now it is 7 o'clock in Florence, what number do you see? [30 pts]

Looking at the 4 clocks above the elevators: **1672**

2) In front of a door where you cannot enter, tell me, what movie star do you see? [30 pts]

In front of the men toilette door: **Marilyn Monroe**

3) Staring at the same forbidden door and going on your right you will find four photos near the stairs. Which are these places? Along your path you will pass through one of them. Put a star next to its name. [50 pts]



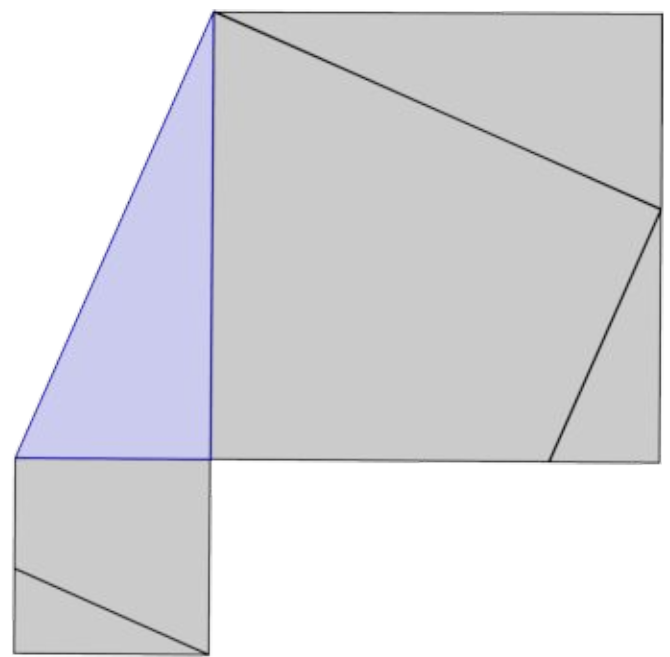
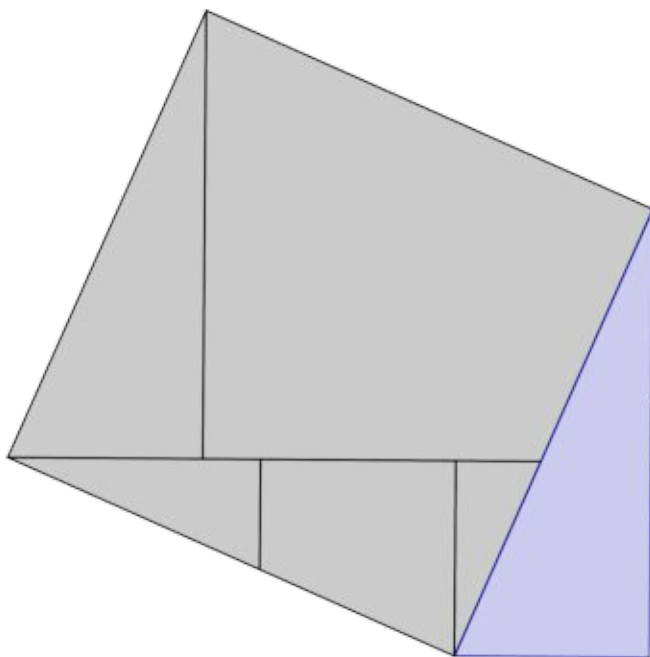
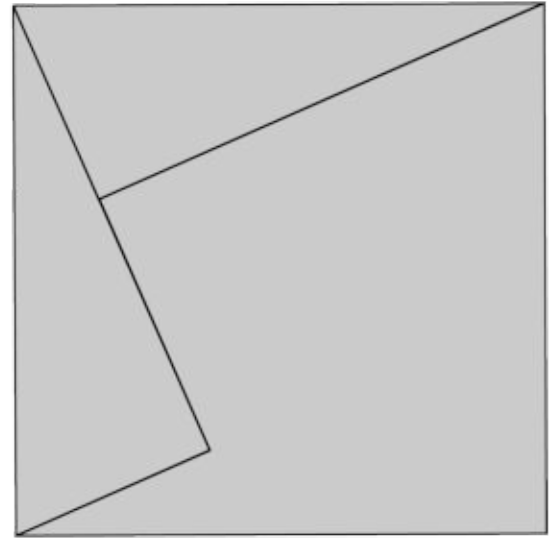
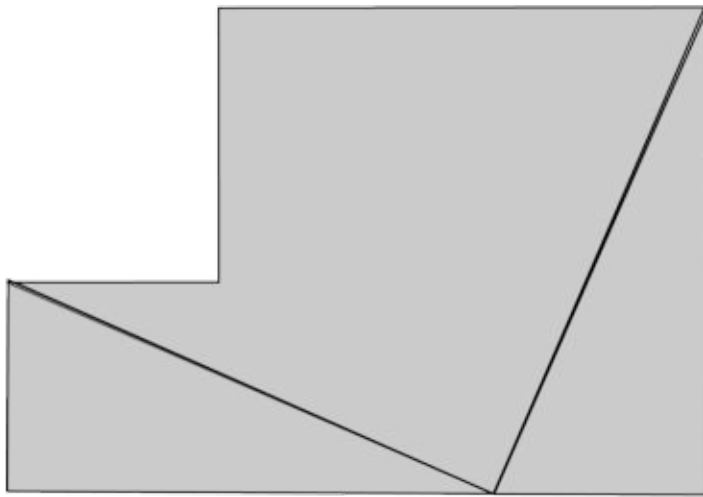
- Piazza del Duomo**
- Piazza san Lorenzo**
- Giardino delle rose**
- *Piazza della Signoria**

4) Do you love triangles? We found pieces of two proofs of a theorem and we put them at the end of the roadbook: can you help us find these proofs? What is the theorem? (Draw the two proof on the last page of the roadbook) [10 + 50 + 50 pts]

Pitagora
(name of the theorem)



(Proofs for question 4)





- 5) Now let's go outside!! THANKS to this BRIDGE you could go on the other side of the river... but only if you say it in Italian.

Go on this bridge take a look at the following OLD BRIDGE full of houses.

Through how many arcs of the bridge are you able to look beyond? [50 pts]



From *Ponte delle Grazie*, observing *Ponte Vecchio* you can see
6 arcs

Follow with your eyes from left to right the upper gallery of that bridge and you will find your next destination.

- 6) While you're almost arrived to the next stage, we recall that the river Arno has been very naughty back in the days... In November 4th 1966 there has been a big flooding in Florence that brought the city to its knees. However Galileo was aware of the danger, and he got himself some special glasses. What colour were them?
Take a selfie with him! [50 + 50 pts]

red





7) Cosimo I built this great museum!

Without going inside the Gallery you can still meet some of the great figures from Tuscany that in the Medieval and Renaissance Era contributed to the culture in the world.

Looking around, we ask you to solve the following riddles:

- | | |
|--|--|
| a. Find the missing fighting turtle. <i>[20 pts]</i> | a. Raffaello |
| b. He is strongly linked to a hymn for Saint John. How many of the beginnings of its verses are there? <i>[20 pts]</i> | b. 41 musical notes |
| c. For sure he has to do with toponymy of continents... and an exotic animal is close to him. <i>[20 pts]</i> | c. Amerigo Vespucci |
| d. He was claimed to be able to draw perfect circle by hand: what project is he showing to you? <i>[20 pts]</i> | d. Giotto bell tower |
| e. They own the same tool but without any nails. And only one of them has it in his hand. Who are they? What is this tool and who is the great sculptor that has it in his hand? <i>[50 pts]</i> | e. Michelangelo, Donatello and Nicola Pisano
hammer
only Donatello |
| f. He wrote Nova Genera Plantarum. <i>[20 pts]</i> | f. Pier Antonio Micheli |
| g. His hand is on top of the symbols of Florence, the Vatican, and Rome. <i>[20 pts]</i> | g. Machiavelli |
| h. He loved to look far away, he has the universe at his feet... but not the church! <i>[20 pts]</i> | h. Galileo Galilei |
| i. Between Andrea Orcagna and Nicola Pisano, there are the "mecenati", that used their wealth to encourage and develop artistic and scientific advance: who are they? <i>[20 pts]</i> | i. Lorenzo il Magnifico and Cosimo |
| j. He has a long beard but he's not a monk. Despite his masterpiece is conserved in Paris, he was born in Tuscany. <i>[20 pts]</i> | j. Leonardo da Vinci |



8) Walking through Florence you might see some bodacious hunks, scantily dressed. They don't like the rain and thus under a loggia you will find them.

For every detail shown in the picture below provide the title of the sculpture. [90 pts]



1. Perseo,
2. "Thusnelda",
3. Menelao che sorregge il corpo di Patrolo,
4. Ercole in lotta col centauro Nesso,
5. Ratto delle Sabine,
6. Ercole in lotta col centauro Nesso,
7. Pirro che rapisce Polissena,
8. Leone,
9. Pirro che rapisce Polissena

9) Before moving on, look around you! There are many coat-of-arms which have been important in the history of Florence. Little known fact: you can do math with them!!

This ancient scroll has been found:



Draw the coat-of-arms that can be equivalent to zero [120 pts]

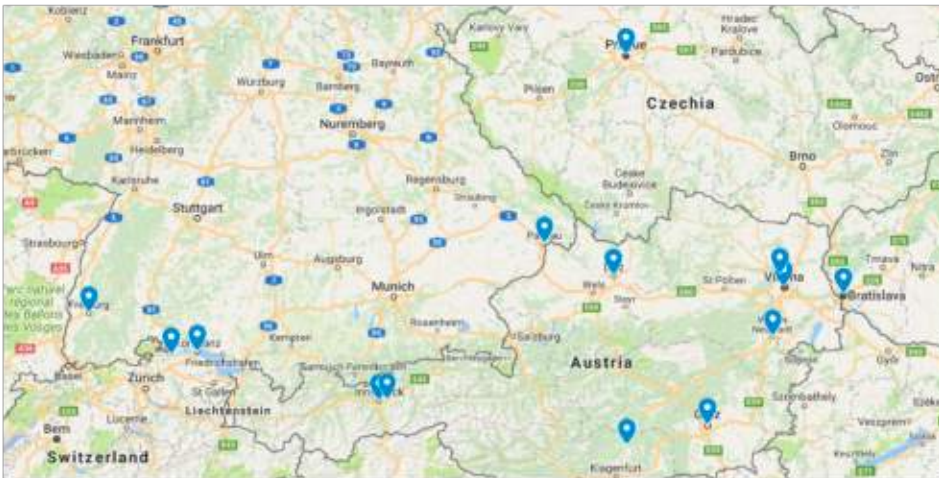




10) Inside this ancient palace of power, whose entrance is surveilled by the majestic statue of David, you can admire the plan of different european cities.

Find a person (not belonging to your team) that was born as near as possible to one of these cities.

Write the ancient name and the actual name of this city.



To demonstrate that you found a person, you need to show us a picture with:

- the found person,
- one person from your team and
- the identity card/ driving licence where there is a picture of the person and where it is written the place of birth. You can cover all the other sensible information.

[100 pts for the picture +
max 100 pts according to the distance]

11) Turn your steps towards the big dome of the Flower. In the middle of the way you can find the numerical solution of this riddle (in arabic number):
“The zzzz on the yyy in republic xxxxxx”.



The clues are:

$$zzzz \approx 3 \cdot 10^7 \text{ s}$$

yyy is a piece of circumference

xxxxxx is the rectangle with maximal area under given perimeter

[50 pts]

zzzz = year

yyy = arc

xxxxxx = square

1895

12) Now let's move on to the rectangle of the union of two holy rectangles!

There, an historical re-enactment very dear to people of Florence takes place, a “football” match with a medieval tradition: even though it is played with a ball, do not expect Messi or Ronaldo to take part in it.

Who was the last team to win, in 24th June 2017?

[70 pts]

_____bianchi_____



13) Someone refers to it as the Temple of Italians Glorious Men. In this place great artists, writers, scientists and musicians rest in peace.

Some rectangles on the front of this building have the whole perimeter in green but they are not entirely green.

How many rectangles are there with these features?
[50 pts]

_____109_____



14) If you're a bookworm, this is a recommended place for you. List the titles of all the masterpieces you can find around it. Take a photo of its acronym.

[80 + 50 pts]



**epistole,
divina commedia,
monarchia,
convivio,
vita nuova,
egloghe,
rime,
de vulgari
eloquentia**

*Well done!! Now you can go back to the hotel and relax.
But don't forget to return this roadbook to the jury before 18:10!!*

