

# DISCOVERING THE GEOMETRY OF

## *Leonardo da Vinci*

If you don't know *Leonardo da Vinci*, here is some information that accompanies his self-portrait...

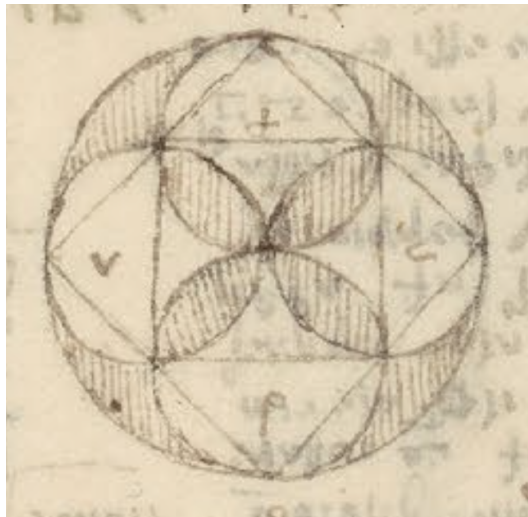
Leonardo was born in 1452 in Vinci, a small town in Italy, and he died in 1519 in Amboise (France). He worked for very rich and important princes, like Ludovico Sforza in Milan and King François, the first, in France. Leonardo is one of the most famous people from the Renaissance because of his art (paintings and sculptures), his drawings of the human body and plants, and his many inventions, although we don't know if he actually built them. Leonardo can also be called a mathematician. He even worked with another famous mathematician, Luca Pacioli, and drew geometric shapes for him. Unfortunately, Leonardo's writings are not easy to read because he wrote from right to left, in mirror writing!



Royal Library, Turin

By visiting the great Ambrosian Library in Milan, Italy, you can find an old and very important book of Leonardo da Vinci's work. This book is called the *Codex Atlanticus*, named after its large size ( $64.5 \times 43.5\text{cm}$ ) – it's twice as big as the largest notebook a student uses today

On the back of page 471, you can find many geometric drawings that the Italian engineer and artist made himself. Here is one of them :



From « *De ludo geometrico* » : *la matematica e la geometria di Leonardo*, De Agostini, 2013.

### Study of the Figure

Look at this figure very carefully. To do this, you can identify the basic shapes and name them. If needed, you can trace their outlines with a color.

### Reproducing the Figure

Build it using the right tools.

### Writing a Construction Text

Describe the different steps of this construction.