

## BASIC SURFACES FOR ENGINEERING



*Figure 00. Main stairs of Engineering School of Bilbao II. Picture made by the authors, 2018.*

### 4. Surface development test

## Instructions

The questions presented are multiple choice, with only one correct answer.

The solutions are at the end of the document.

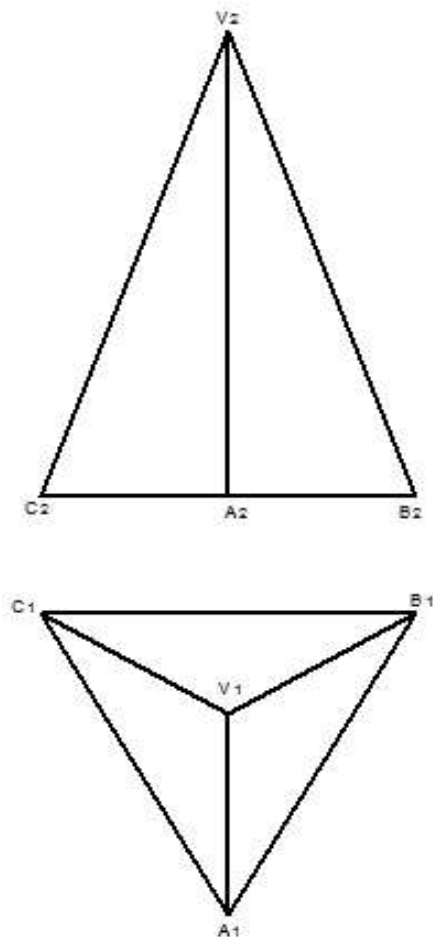
## Surface development test

1. Which of the following surfaces cannot be developed?
  - a. The pyramid.
  - b. The Sphere.
  - c. The cylinder.
  - d. The prism.
  
2. What surface development results in a rectangle?
  - a. Oblique pyramid.
  - b. Sphere.
  - c. Oblique Cylinder.
  - d. Straight prism.
  
3. What surface development results in a rectangle?
  - a. Straight cylinder.
  - b. Oblique Cylinder.
  - c. Straight pyramid.
  - d. Oblique prism.
  
4. What area development results in a circular sector?
  - a. Straight cylinder.
  - b. Oblique Cylinder.
  - c. Straight cone.
  - d. Oblique cone.
  
5. Will the development of a circular-based oblique cone be?
  - a. A circular sector.
  - b. Symmetrical.
  - c. Asymmetric.
  - d. An equilateral triangle.

6. Which of the following areas needs to be divided into parts to calculate its development?

- a. An oblique pyramid.
- b. An oblique cone.
- c. A straight prism.
- d. An oblique prism.

Given the dihedral projections of the figure's straight pyramid answer the following questions:



7. What form will the different faces of the development of the same one take?
- Equal triangles.
  - Different triangles from each other.
  - A circular sector
  - Several circular sectors
8. How can the dimensions of the VA, VB and VC segments be obtained more easily?
- Directly from the vertical projection.
  - Directly from the horizontal projection.
  - By means of turns. The dimension will be measured in the vertical projection.
  - By means of turns. The dimension will be measured in the horizontal projection.
9. What about segments AB, BC and CA?
- Directly from the vertical projection.
  - Directly from the horizontal projection.
  - By means of turns. The dimension will be measured in the vertical projection.
  - By means of turns. The dimension will be measured in the horizontal projection.
10. In the development of an oblique cone the curve generated is tangent:
- Only to the perpendicular of the longest generator.
  - Only to the perpendicular of the shorter generator.
  - To the perpendicular of the longest and shortest generatrix.
  - To any generator.

## Solutions for surfaces basic concepts testing

1b, 2d, 3a, 4c, 5b, 6b, 7a, 8c, 9b, 10c.