## Introductory Algorithm — Algorithmic Art — Tobias Zimmer — WS1819

Necessary Materials: 1 blank sheet of white paper (DIN A4) 1 ruler (30cm) 1 geometry triangle 1 pencil 1 pen (your favorite color — this is the part where you can use your full artistic freedom)

<u>Steps to follow:</u> Place the sheet of paper in front of you vertically.

Mark the top and bottom edge of the paper with a small pencil stroke at centimeter 4, measuring from the left edge.

Mark the left and right edge of the paper with a small pencil stroke at centimeter 4, measuring from the top edge.

Connect the mark on the top edge, with the mark on the bottom edge, with a straight pencil line.

Connect the mark on the left edge, with the mark on the right edge, with a straight pencil line.

Align your ruler with the shorter line.

Align the zero centimeter mark of your ruler, with the intersection of the shorter and the longer line.

From 0 to 13cm, mark the shorter line with small pencil strokes at each 5mm step.

Starting from 0.5cm, label your pencil strokes with the letters of the alphabet from A to Z.

Align your ruler with the longer line.

Align the zero centimeter mark of your ruler, with the intersection of the shorter and the longer line.

From 0 to 13cm, mark the longer line with small pencil strokes at each 5mm step.

Starting from 0.5cm, label your pencil strokes with the letters of the alphabet from A to Z.

The structure created so far, will be called coordinate system from now on.

The ability to work with a coordinate system is assumed.

Before executing the next step, read the next three steps and the example.

Use the pen of your favorite color, to write down your first name, in block letters, in the square, in the upper-left corner of the paper (if you have multiple prenames, choose one).

Use the pen of your favorite color, to write down your family name, in block letters, beneath your first name, so that each letter builds a pair with a letter of your first name.

If one of your names (first name or family name) has less letters than the other, extend the shorter name with letters from its beginning, until it matches the length of the longer name.

Example:	BEN	becomes	BENBE
	FROST		FROST

The extended name will still be referred to as *first name* or *family name* in the following steps.

Find the first letter of your first name, on the horizontal axis of the coordinate system.

Find the first letter of your family name, on the vertical axis of the coordinate system.

Use the geometry triangle to mark the position in the coordinate system with a small dot (you may draw guide lines with the pencil).

Label the dot with the number of the current letter-combination.

Repeat the last 4 steps of the algorithm for each letter-combination of your names successively, starting with the first letter-combination and ending with the last letter-combination.

Connect the numbered dots in ascending order, using the pen of your favorite color.