

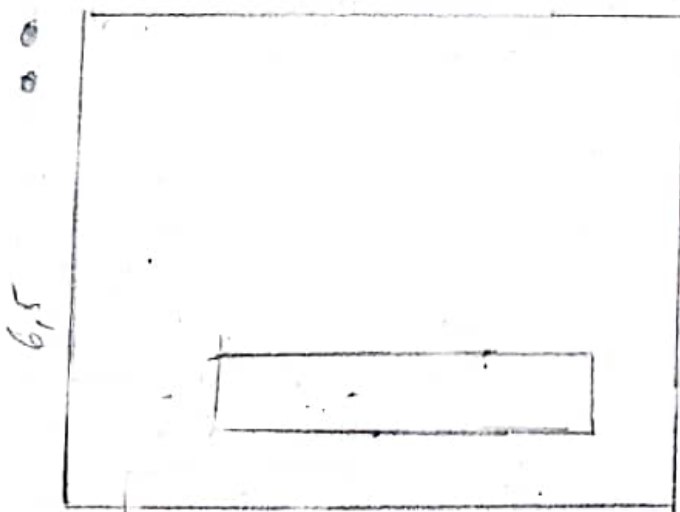
# Engineering of the future

## Use of measuring devices, analysis of measurement data

### Task 2

#### Lighting of the workplace. Air volume in the room.

- Make a room plan. Select the appropriate scale.
- Mark the workplace on the plan.
- Mark the illuminance data with artificial lighting on and with natural lighting.
- Calculate the air volume of the room; air volume per person.
- To compare lighting data with recommended values in schools in Lithuania, Turkey, Italy and Portugal.
- Present conclusions. <sup>300-500</sup>
- Make recommendations.



$$V = a \cdot b \cdot c$$
$$3 \times 6,5 \times 8,5$$
$$= 165,75 \text{ m}^3$$

per person: 6,13

- 650 Lithuania
- PORTUGAL 300-500 lux
- TURKEY 300-500 lux
- As far as lightning conditions we consider that this room as optimal conditions. Regarding the workplace air volume we consider de CO<sub>2</sub> level higher than desired so ventilation is needed