Graffiti Dice Drawing: Lettered Cube Faces with Shading

Original tasks 1, 2 / independent work

Task 1

A cube net uses 5 cm squares. A letter on the top face has its baseline 1 cm from the bottom edge and its midline 3.5 cm from the bottom edge. What is the x-height in centimeters?

Task 2

An isometric cube has a light arrow pointing from the upper right. The three visible faces are top, front, and left side. Which visible face should be shaded darkest, and which lightest?

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Original tasks 3, 4 / independent work

Task 3

On a 6 cm cube face, a letter is drawn with 0.3 cm clearance from the left edge and 0.4 cm from the right edge. The letter width is 4.8 cm. Does the letter fit within the face with at least 0.5 cm clearance on both sides? Show the arithmetic.

Task 4

A cube has a 6 cm edge. A cast shadow is drawn 2 cm long on the ground plane, starting at the cube's right edge and extending away from the cube. If the light direction is from the upper left, on which side of the cube should the shadow appear, and what is the total horizontal distance from the cube's left edge to the shadow's far end?