Pencil Building Sketch: Construction Lines and Proportion

Original tasks 1, 2 / independent work

Task 1

A building sketch has a wall height of 10 units and a roof rise of 5 units. The width is 6 units. Calculate the total height, the simplified width-to-height ratio, and the roof fraction of total height.

Task 2

A sketch uses baseline-to-midline convention. The building height is 16 units and a sign is 4 units from baseline to midline. What fraction of the building height is the sign? If the sign were moved so it measured 8 units, what fraction would it be?

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Original tasks 3, 4 / independent work

Task 3

A building is 12 units wide and 18 units high. A second sketch of the same building is 8 units wide. Using the same width-to-height ratio, what should the second sketch's height be?

Task 4

A sketch has a total height of 20 units. The roof is 5 units high. The width is 10 units. State the width-to-total-height ratio in simplest form and the roof fraction. Then describe one valid alternative roof height that keeps the total height at 20 units and state its fraction.