Ruler-Guided House Drawing: Straight Walls, Roof, and Windows

Original tasks 1, 2 / complete keys

Task 1

Draw a flat-roof house with a 10 cm baseline, walls 5 cm tall, and one window rectangle 3 cm wide by 2 cm tall placed 1 cm from the left wall and 1 cm below the wall top. Use centimeters (hypothetical).

Answer: Baseline 10 cm; wall tops level at 5 cm; flat roof line connects wall tops; window spans 1 cm to 4 cm horizontally and 2 cm to 4 cm vertically.

Reason: A flat roof needs only one horizontal line between equal wall tops. The window is measured 1 cm inward from the left wall and 1 cm down from the wall top, keeping it inside the wall.

Check: Measure wall heights (both 5 cm), confirm roof line is level under the ruler, and check window width 3 cm and height 2 cm with 1 cm margins from the left wall and wall top.

Task 2

Draw a gable house with a 12 cm baseline, walls 7 cm tall, peak 4 cm above wall tops at the midpoint, and a door 3 cm wide by 5 cm tall centered on the baseline. Use centimeters (hypothetical).

Answer: Baseline 12 cm; midpoint at 6 cm; wall tops at 7 cm; peak at 6 cm horizontally and 11 cm above baseline; door spans 4.5 cm to 7.5 cm horizontally and 0 to 5 cm vertically.

Reason: The peak height is wall height plus 4 cm. Centering the door means its midpoint matches the baseline midpoint, so it spans 1.5 cm on each side of 6 cm.

Check: Verify wall heights equal 7 cm, peak above midpoint, roof lines meet at peak, and door width 3 cm and height 5 cm centered at 6 cm.

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Original tasks 3, 4 / complete keys

Task 3

Draw a house with an 8 cm baseline, walls 6 cm tall, a gable peak 2 cm above wall tops, and two window rectangles each 2 cm wide by 2 cm tall placed 1 cm from each side wall and 1 cm below the wall top. Use centimeters (hypothetical).

Answer: Baseline 8 cm; midpoint at 4 cm; wall tops at 6 cm; peak at 4 cm horizontally and 8 cm above baseline; left window spans 1 cm to 3 cm horizontally and 3 cm to 5 cm vertically; right window spans 5 cm to 7 cm horizontally and 3 cm to 5 cm vertically.

Reason: Each window is measured 1 cm inward from its side wall and 1 cm down from the wall top, keeping both inside the wall area and symmetric about the midpoint.

Check: Check wall heights equal 6 cm, peak above midpoint, both windows 2 cm by 2 cm, and margins of 1 cm from side walls and wall tops.

Task 4

Draw a flat-roof house with a 9 cm baseline, walls 4 cm tall, and a door 2 cm wide by 3 cm tall placed 2 cm from the right wall. Use centimeters (hypothetical).

Answer: Baseline 9 cm; wall tops level at 4 cm; flat roof line connects wall tops; door spans 5 cm to 7 cm horizontally and 0 to 3 cm vertically.

Reason: The door is measured 2 cm inward from the right wall at 9 cm, so its right edge is at 7 cm and its left edge at 5 cm. Height is measured up from the baseline.

Check: Measure wall heights (both 4 cm), confirm roof line is level, and check door width 2 cm, height 3 cm, and 2 cm margin from the right wall.

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Source rubric / reflection

- [ ] Baseline and wall lines are straight when checked with the ruler edge.
- [ ] Wall heights match within the chosen tolerance.
- [ ] Peak is above the baseline midpoint for a gable roof, or roof line is level for a flat roof.
- [ ] Window and door rectangles are inside walls with visible margins.
- [ ] Units are stated once and used consistently.
- [ ] Labels are horizontal and legible with consistent x-height from baseline to midline; alternative letter styles are accepted.

Reflection: What did you check, what did you change, and what will you try next?