Draw Your Neighborhood Map: Labeled Streets and Landmarks

Original tasks 1, 2, 3 / complete keys

Task 1

On a map with a scale of 1 cm to 25 m, two landmarks are 4 cm apart. What is the real distance? Show your arithmetic.

Answer: 4 cm times 25 m per cm equals 100 m.

Reason: Multiply the map distance by the scale factor: 4 times 25 equals 100. Keep the unit as meters because the scale uses meters.

Check: Reverse the calculation: 100 m divided by 25 m per cm equals 4 cm, which matches the map distance.

Task 2

A student lists these landmarks: house, shop, park, school, bus stop, friend's house, library, and bakery. They draw streets first, then place landmarks. Their legend shows a square for house and a square for shop. Explain one mistake and how to fix it.

Answer: The mistake is using the same symbol for two different landmark types. Fix it by choosing a different symbol for the shop, such as a rectangle, and drawing it once in the legend.

Reason: A legend must distinguish each type of place. If house and shop share a square, a reader cannot tell them apart. Changing one symbol and updating the legend solves this.

Check: Check that every symbol in the legend is unique and that each map symbol matches exactly one legend entry.

Task 3

A map frame is 18 cm wide. A student wants to show a street that is 360 m long using a scale of 1 cm to 20 m. Will the street fit on the paper? Show your arithmetic.

Answer: The street would be 360 m divided by 20 m per cm, which equals 18 cm. It exactly fits the 18 cm width, so it fits only if drawn edge to edge with no margin.

Reason: Convert the real length to map length by dividing by the scale factor: 360 divided by 20 equals 18. Compare 18 cm with the 18 cm frame width.

Check: Multiply the map length by the scale: 18 cm times 20 m per cm equals 360 m, which matches the real length.

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Original tasks 4 / complete keys

Task 4

A student draws a map with labels that overlap and uses three different lettering styles. Their scale says '1 cm = 10 m' but they measured one distance as 3 cm and wrote '30 km'. Identify two problems and give a fix for each.

Answer: Problem one: overlapping labels and inconsistent lettering make the map hard to read; fix by spacing labels apart and using one lettering style. Problem two: the unit is wrong because 3 cm at 1 cm to 10 m equals 30 m, not 30 km; fix by writing 30 m and using meters consistently.

Reason: Readability depends on clear spacing and consistent style. Unit consistency depends on matching the scale unit. The arithmetic 3 times 10 equals 30, and the scale uses meters, so the answer must be in meters.

Check: Re-measure the distance as 3 cm, multiply by 10 m per cm to get 30 m, and confirm the written unit matches the scale unit.

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Source rubric / reflection

- [ ] Map includes six to ten labeled landmarks and two to four named streets.
- [ ] Legend box shows each symbol once with its meaning.
- [ ] Street lines are drawn before landmarks are placed.
- [ ] Scale statement is present and uses consistent units.
- [ ] Labels are legible and do not overlap.
- [ ] Lettering style is consistent; x-height is baseline to midline, and valid alternative styles are accepted.
- [ ] A classmate can locate at least one landmark using the legend and labels.

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