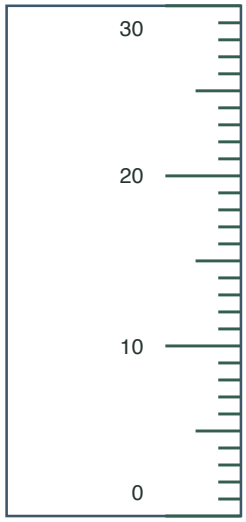
Height Ruler

Answer | Task 1 of 4 | LETTER

Prompt

Task 1 — Describe how you would lay out a single vertical strip covering a chosen height range, including where the zero mark goes, how the intervals are marked, and how the numbers are placed.



Answer

Place the zero mark at the bottom of the strip so it sits at floor level when mounted. Divide the strip into equal height intervals upward, put a short tick at each interval and a longer tick with a number at each labelled height, and keep the numbers facing outward and large enough to read from a step back.

Reasoning

The zero at the bottom matches floor level, and equal intervals with numbered longer ticks make the scale readable at head height.

Check

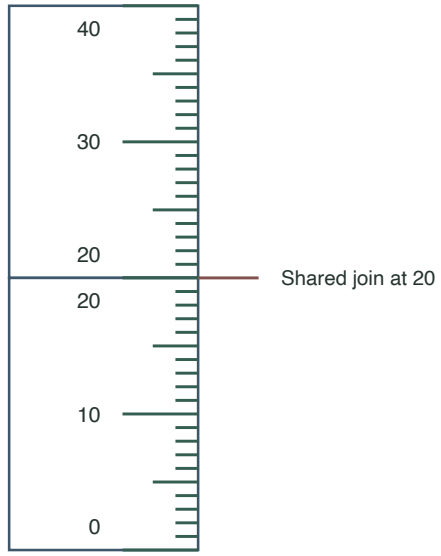
Confirm the zero is at the bottom edge, the intervals are equal, and every labelled height has a number beside a longer tick.

Height Ruler

Answer | Task 2 of 4 | LETTER

Prompt

Task 2 — A strip is printed in two segments. Explain how you mark the continuation height so the joined strip keeps a continuous scale, and what you check after joining.



Reduced join diagram

Answer

Mark the height where the first segment ends on both the first segment's top and the second segment's bottom, so the second segment starts at exactly that height. After joining, check that the join height reads the same on both segments and that no interval is doubled or skipped.

Reasoning

A shared continuation height on both segments prevents a gap or overlap in the scale at the join.

Check

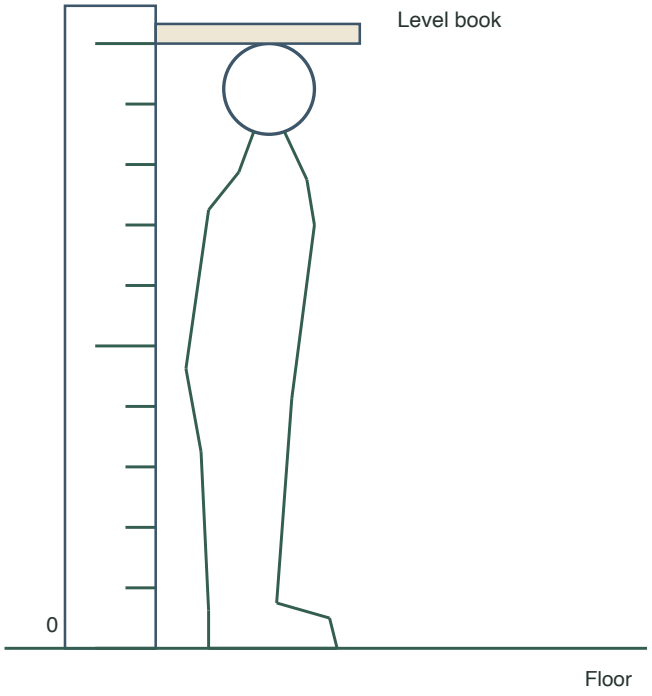
Read the join height on the joined strip and confirm it matches the marked continuation height on both segments.

Height Ruler

Answer | Task 3 of 4 | LETTER

Prompt

Task 3 — Describe how to mount the strip and how a helper should position a standing person so the height is read correctly.



Answer

Place the zero mark at floor level on a flat wall and use a level to set the strip upright. Stand on a firm floor with shoes off and feet flat. Look straight ahead. The helper holds a flat book horizontal across the crown of the head and reads the strip at the book's lower edge.

Reasoning

An upright strip with zero at the floor measures from the correct datum. The horizontal headpiece transfers the crown height to the wall.

Check

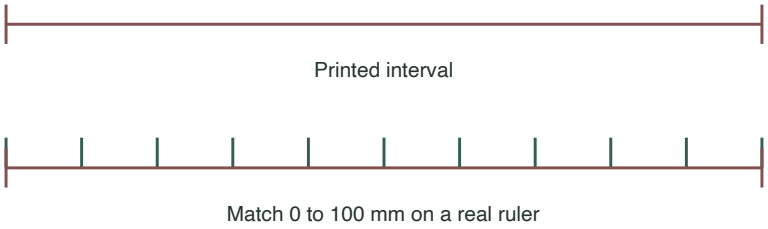
Confirm the strip is vertical, its zero touches floor level and the straightedge at the crown is level. Repeat the reading and recheck any difference.

Height Ruler

Answer | Task 4 of 4 | LETTER

Prompt

Task 4 — Explain how you would check that a printed strip is at true scale before mounting it, and what you would do if it is not.



Answer

Print at 100% or actual size, then compare a marked interval on the strip with a known real length using a ruler; if the interval does not match, reprint at actual size rather than stretching the paper. Only mount a strip whose printed intervals match real length.

Reasoning

A fit-to-page setting can shrink or enlarge the scale. Compare the physical interval with a ruler before using the strip.

Check

Measure a marked interval on the printed strip with a ruler and confirm it equals the intended real length.