Balance Scale Black Line Drawing: Clean Outline Technique

Original tasks 1, 2 / independent work

Task 1

A scale has a beam 18 units wide. The hanging points are 7 units left and 7 units right of the midpoint. How many units of beam overhang remain on each side?

Task 2

You plan a stand 9 units tall and a beam 12 units wide. The pivot circle is 2 units across and centered at the top of the stand. Describe where the beam's top edge should sit relative to the pivot, and state one continuity check.

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Original tasks 3, 4 / independent work

Task 3

A student draws a balanced scale with left pan 4 units wide and right pan 5 units wide. The hanging points are equal distances from the midpoint. Identify the error and give a fix using the outline convention.

Task 4

Your beam is 16 units wide and each side overhang is 3 units. What is the distance between the two hanging points? If each pan is 4 units wide, state whether the pans fit inside the overhang and explain.