Draw a Kids' Balance Scale in Four Simple Steps

Original task 1 / independent drawing and calculation

Task 1

On paper 15 cm tall, mark a baseline 2 cm from the bottom and a midline 7 cm above the baseline. Draw a base 6 cm wide and 1 cm tall with its bottom edge on the baseline, a stand 1 cm wide and 7 cm tall centered on the base (bottom at the base top, top 1 cm above the midline), a beam 8 cm wide and 1 cm tall centered on the stand, and two pans hanging 1.5 cm below each beam end. All measurements in this exercise are hypothetical examples. Describe your drawing.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Kids' Balance Scale in Four Simple Steps

Original task 2 / independent drawing and calculation

Task 2

A student draws a beam 10 cm wide but places one pan 2 cm below the beam and the other 3 cm below. Is this a valid simplified balance scale? Explain and give a fix.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Kids' Balance Scale in Four Simple Steps

Original task 3 / independent drawing and calculation

Task 3

Draw a simplified balance scale using rounded pans instead of rectangular ones. Keep the base 7 cm wide, stand 1 cm wide and 6 cm tall, beam 9 cm wide, and hanging lines 2 cm. Describe how your drawing still meets the convention.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Draw a Kids' Balance Scale in Four Simple Steps

Original task 4 / independent drawing and calculation

Task 4

On paper 18 cm tall, use a baseline 3 cm from the bottom and a midline 8 cm above the baseline. Draw a base 8 cm wide and 1 cm tall, a stand 1 cm wide and 8 cm tall centered on the base (bottom at the base top, top 1 cm above the midline), a beam 10 cm wide and 1 cm tall, and two pans hanging 2 cm. All measurements in this exercise are hypothetical examples. Then label all four parts. Describe your labels.

Keep the original task measurements. Use the full drawing sheet in this PDF for a response needing more room; use the stated paper size when a task specifies larger paper.

Full drawing sheet / reusable blank workspace

Reusable full drawing sheet for Tasks 1 to 4. Print another copy when needed. Keep all original task measurements; if a task specifies larger paper, use that paper size.