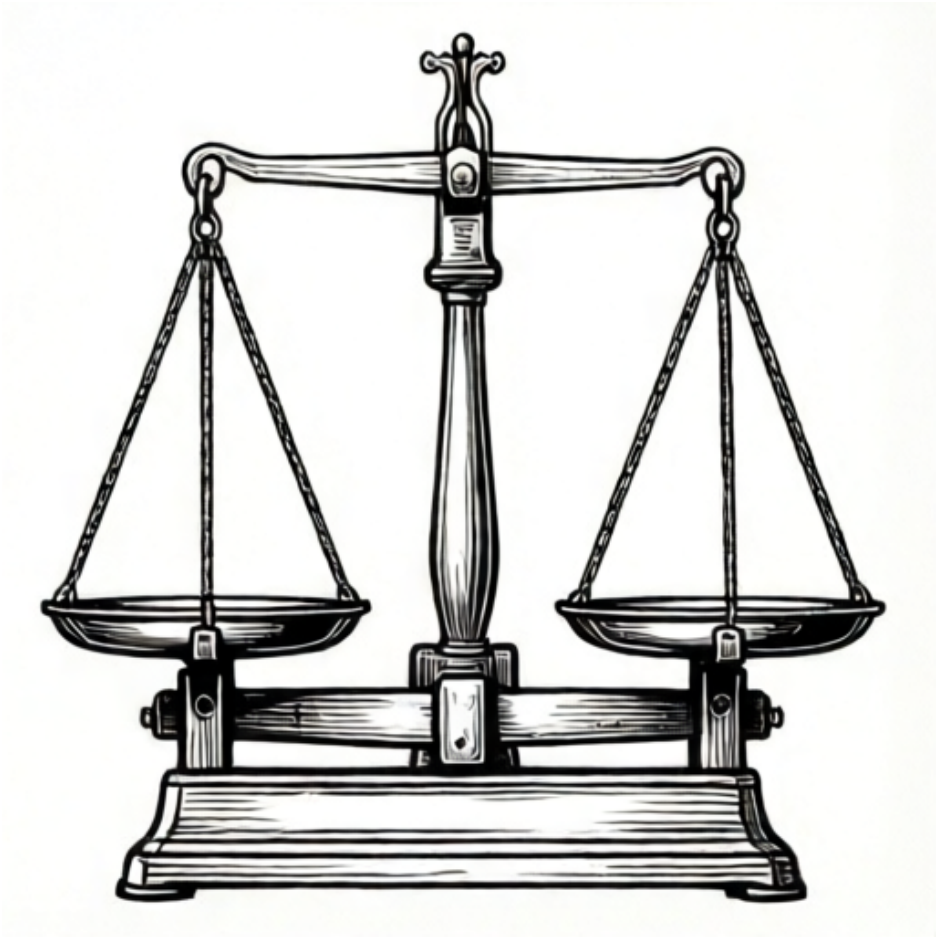
Draw an Old Balance Scale: Beam, Pan, and Base Construction

Ordinary topic reference / separately checked pixels



Draw an Old Balance Scale: Beam, Pan, and Base Construction

Original worked example / unchanged complete key

Prompt: Construct a simple old balance scale on a 20 cm by 25 cm page using a base trapezoid 8 cm wide at the bottom, 5 cm at the top, and 2 cm tall; a column 10 cm tall and 1.5 cm wide; and a beam 12 cm long and 1 cm thick. Describe the order and one symmetry check.

Answer: Place a vertical center line. Center the base trapezoid on the line with the 8 cm bottom edge and 5 cm top edge. From the base top center, draw the column upward 10 cm with sides parallel to the center line. Mark the beam midpoint on the center line at the column top, measure 6 cm left and 6 cm right, and draw the 12 cm beam. Add a pivot shape at the midpoint. Check symmetry by measuring the left and right beam halves; both should be 6 cm within your chosen tolerance.