Draw a Lever: Fulcrum, Arms, and Load in Clear Diagram Form

Original task 1 / independent drawing and calculation

Task 1

A lever beam is 10 cm long. The fulcrum is 3 cm from the left end. Effort acts at the left end and load acts at the right end. State the effort arm and load arm lengths.

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.

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Original task 2 / independent drawing and calculation

Task 2

A lever has an effort arm of 6 cm and a load arm of 2 cm. If the effort is 3 units, what load balances it? Use the arm-length ratio.

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.

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Original task 3 / independent drawing and calculation

Task 3

Describe how to draw a lever where the effort point is 5 cm from the fulcrum and the load point is 5 cm on the other side. What is the beam length if both points are at the beam ends?

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.

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Original task 4 / independent drawing and calculation

Task 4

A diagram shows a fulcrum at 2 cm from the left end of an 8 cm beam. The effort arrow is at the left end and the load arrow is at the right end. The labels say effort arm 2 cm and load arm 6 cm. Is the diagram consistent? Explain.

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.