Draw Tower Bridge: Twin Towers, Chains, and Bascule Span

Original tasks 1, 2 / independent work

Task 1

A drawing has towers 4 cm wide and 14 cm tall, with a 8 cm bascule span. The walkway is marked 3 cm below the tower tops. What is the walkway height above the baseline, and what is the total width between the outer tower edges?

Task 2

On a 40 cm wide paper, towers are 5 cm wide, the span is 10 cm, and abutments are 6 cm outside each tower. Does the full bridge fit with 2 cm margins on each side? Show the arithmetic.

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Original tasks 3, 4 / independent work

Task 3

A student draws the left chain from 9 cm above the baseline to an abutment 4 cm outside the left tower. The right chain starts at 9 cm but ends 7 cm outside the right tower. Describe one correction that makes the pair more symmetric and state the new right abutment distance if you match the left.

Task 4

A tower is 12 cm tall. The walkway is 2 cm below the top, and a chain attachment is 1 cm below the walkway. What is the chain attachment height above the baseline? If the abutment is on the baseline, what is the vertical drop of the chain?