Drawing Graphs to Meet Domain and Range Constraints

Complete original worked example

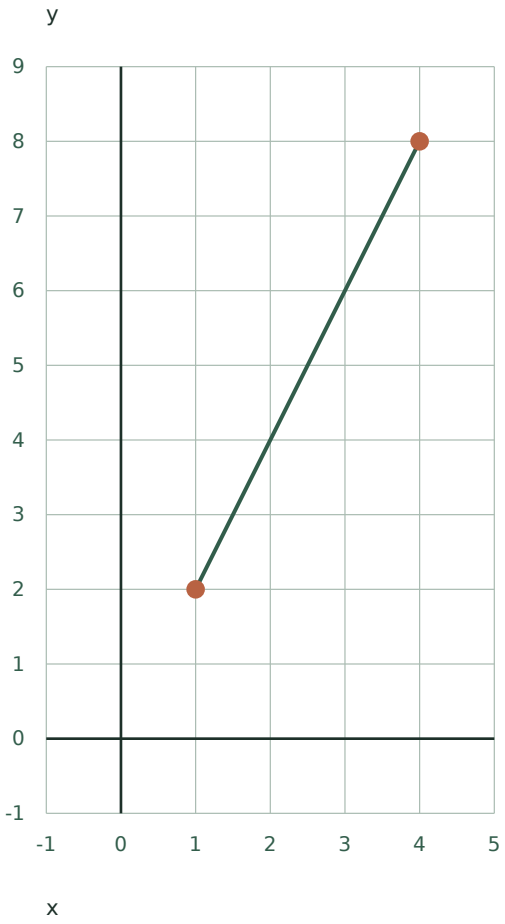
Sketch a function with domain [1, 4] and range [2, 8]. Write the domain and range in interval notation.

Answer: One valid graph is the line segment from (1, 2) to (4, 8). The domain is [1, 4] and the range is [2, 8]. Endpoints are closed because brackets are used. The graph is a function because each x has exactly one y. Check: at x=2, y=4; at x=3, y=6; both lie in [2, 8].

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Worked example / exact interval key

Sketch a function with domain [1, 4] and range [2, 8]. Write the domain and range in interval notation.



Each horizontal interval = 1; each vertical interval = 1. The axes show a display window, not a newly imposed domain.

Included points: (1, 2), (4, 8).