Identify Dependent Systems by Graphing Coincident Lines

Original tasks 1, 2 / independent work

Task 1

Graph y = 2x + 1 and 4x - 2y = -2. Decide whether the system is dependent. Confirm algebraically.

Task 2

Graph x + y = 3 and 2x + 2y = 6. Are the lines coincident? Show an algebraic check.

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Original tasks 3, 4 / independent work

Task 3

Graph y = -0.5x + 4 and x + 2y = 8. Determine whether the system is dependent and explain how the graph shows it.

Task 4

Graph 3x - y = 2 and 6x - 2y = 4. A student says the lines are parallel because the coefficients are doubled. Are they correct? Confirm with slopes and intercepts.

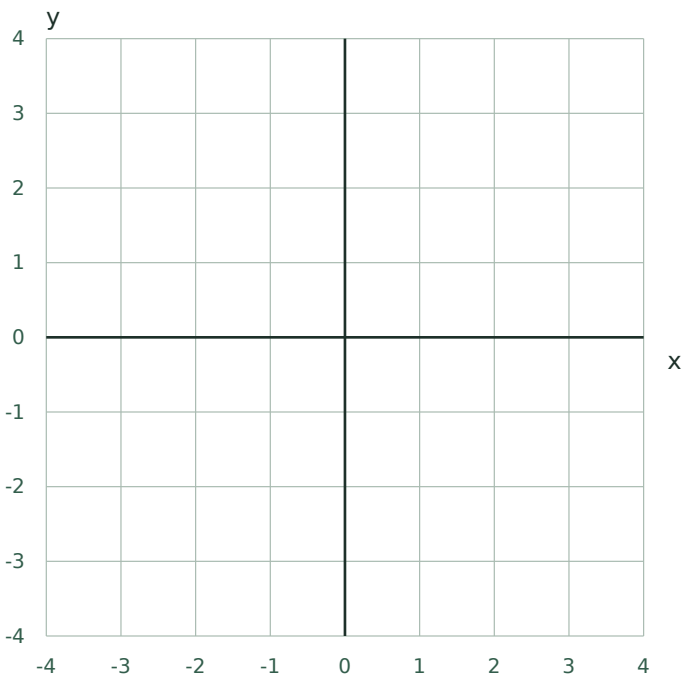
Identify Dependent Systems by Graphing Coincident Lines

Task 1 / empty source grid

Graph y = 2x + 1 and 4x - 2y = -2. Decide whether the system is dependent. Confirm algebraically.

Line 1 (solid green): y = 2x + 1

Line 2 (long-dashed orange): 4x - 2y = -2



Student grid: plot your own points and source line(s). No solution is prefilled.

Horizontal interval = 1; vertical interval = 1. This is a display window, not a new domain.

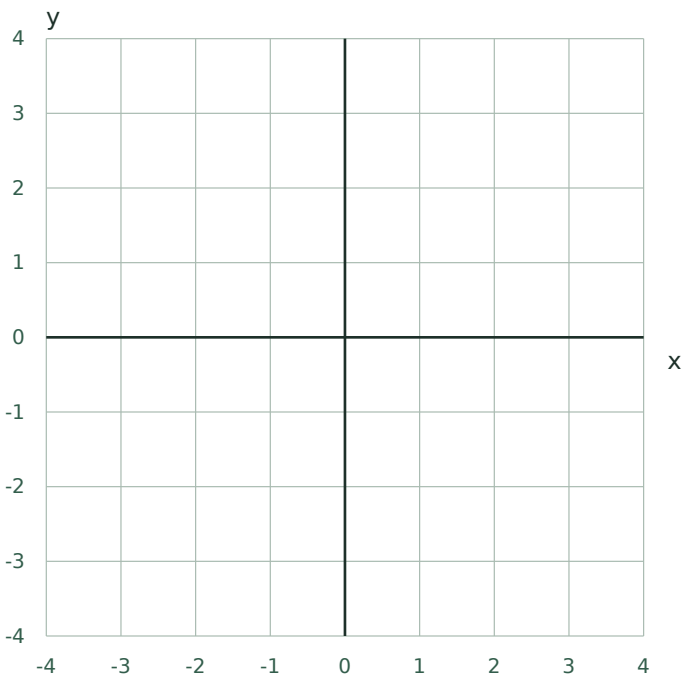
Identify Dependent Systems by Graphing Coincident Lines

Task 2 / empty source grid

Graph x + y = 3 and 2x + 2y = 6. Are the lines coincident? Show an algebraic check.

Line 1 (solid green): x + y = 3

Line 2 (long-dashed orange): 2x + 2y = 6



Student grid: plot your own points and source line(s). No solution is prefilled.

Horizontal interval = 1; vertical interval = 1. This is a display window, not a new domain.

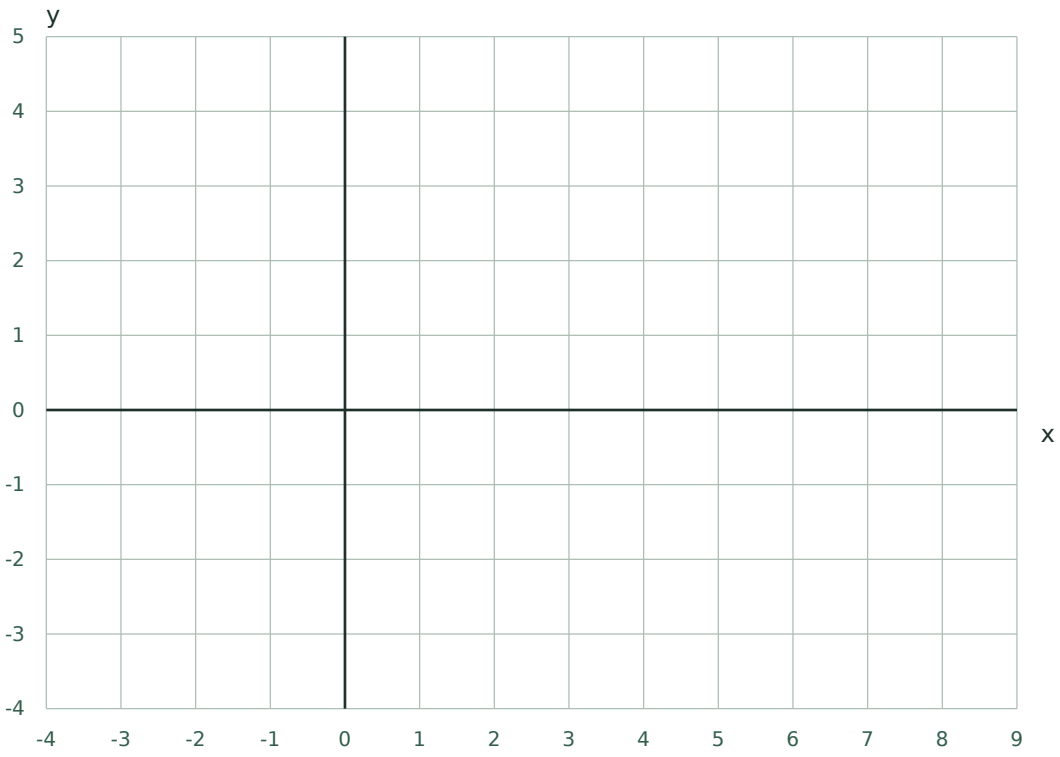
Identify Dependent Systems by Graphing Coincident Lines

Task 3 / empty source grid

Graph y = -0.5x + 4 and x + 2y = 8. Determine whether the system is dependent and explain how the graph shows it.

Line 1 (solid green): y = -0.5x + 4

Line 2 (long-dashed orange): x + 2y = 8



Student grid: plot your own points and source line(s). No solution is prefilled.

Horizontal interval = 1; vertical interval = 1. This is a display window, not a new domain.

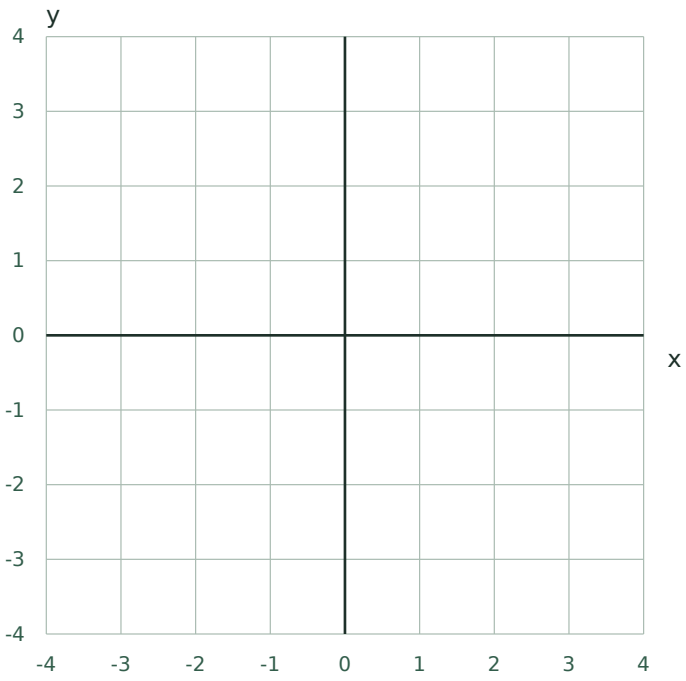
Identify Dependent Systems by Graphing Coincident Lines

Task 4 / empty source grid

Graph 3x - y = 2 and 6x - 2y = 4. A student says the lines are parallel because the coefficients are doubled. Are they correct? Confirm with slopes and intercepts.

Line 1 (solid green): 3x - y = 2

Line 2 (long-dashed orange): 6x - 2y = 4



Student grid: plot your own points and source line(s). No solution is prefilled.

Horizontal interval = 1; vertical interval = 1. This is a display window, not a new domain.