Graphing Review Worksheet: Plotting, Slope, Intercepts, and Reading Lines

Complete original worked example

A line passes through (1, 2) and (4, 8). Find its slope, y-intercept, and x-intercept, and state whether the line rises or falls from left to right.

Answer: Slope = (8 - 2) / (4 - 1) = 6 / 3 = 2. Using y = 2x + b with (1, 2): 2 = 2(1) + b, so b = 0. The y-intercept is (0, 0). Setting y = 0: 0 = 2x, so x = 0; the x-intercept is also (0, 0). The slope is positive, so the line rises from left to right.