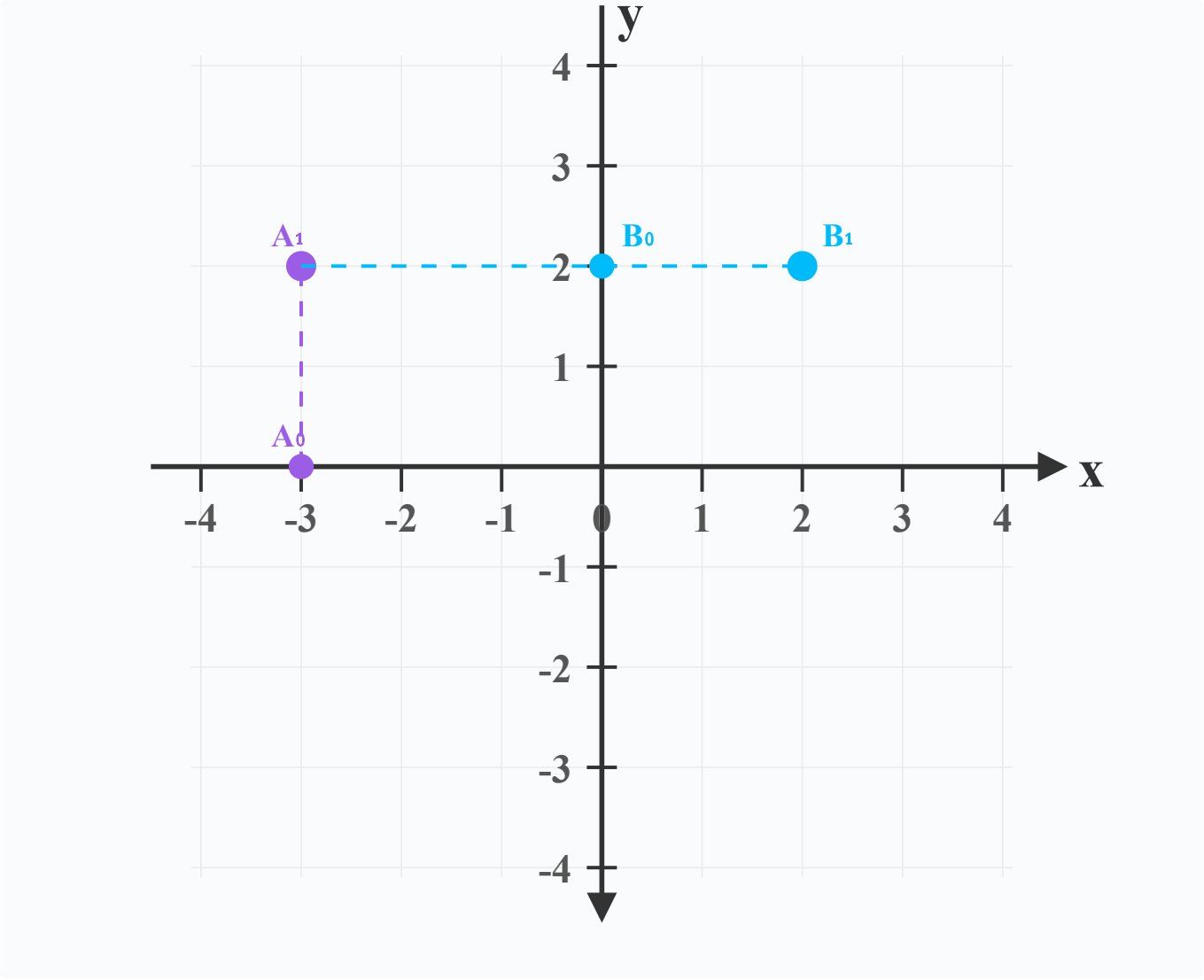
15. The Coordinate Plane

Coordinates (x, y)

x is the position on the X-axis | y is the position on the Y-axis

Find the corresponding positions on the axes, draw perpendicular lines, and the intersection is the point



a) Example: Plotting Points

Plot the following four points:

A_0 $(-3, 0)$ A_1 $(-3, 2)$

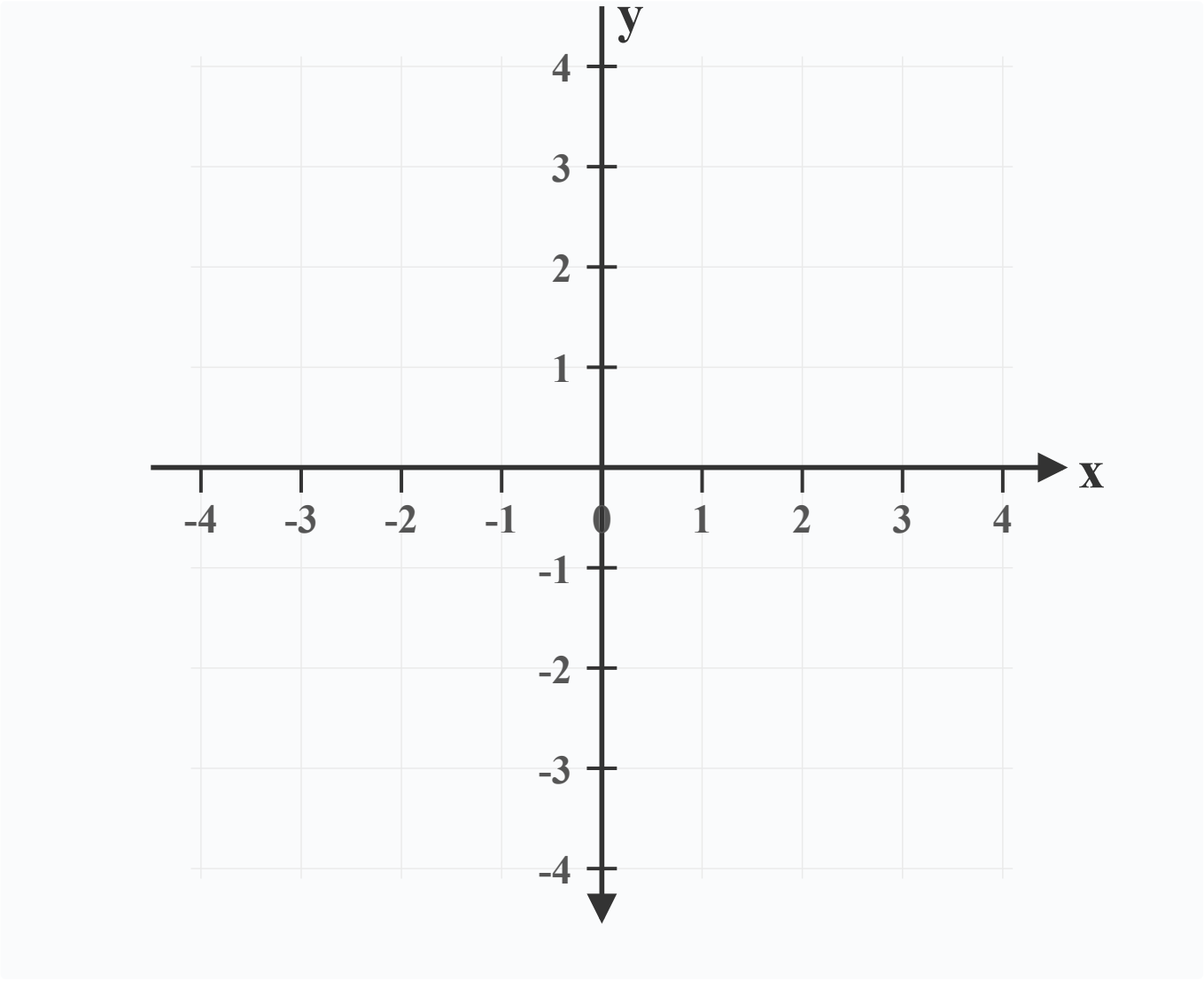
B_0 $(0, 2)$ B_1 $(2, 2)$

Calculate:

Distance from A_1 to B_0 =

Distance from A_0 to B_1 =

Distance from A_1 to B_1 =



b) Points and Distances

Plot the following four points:

C_0 (−4, 0) C_1 (−4, −1)

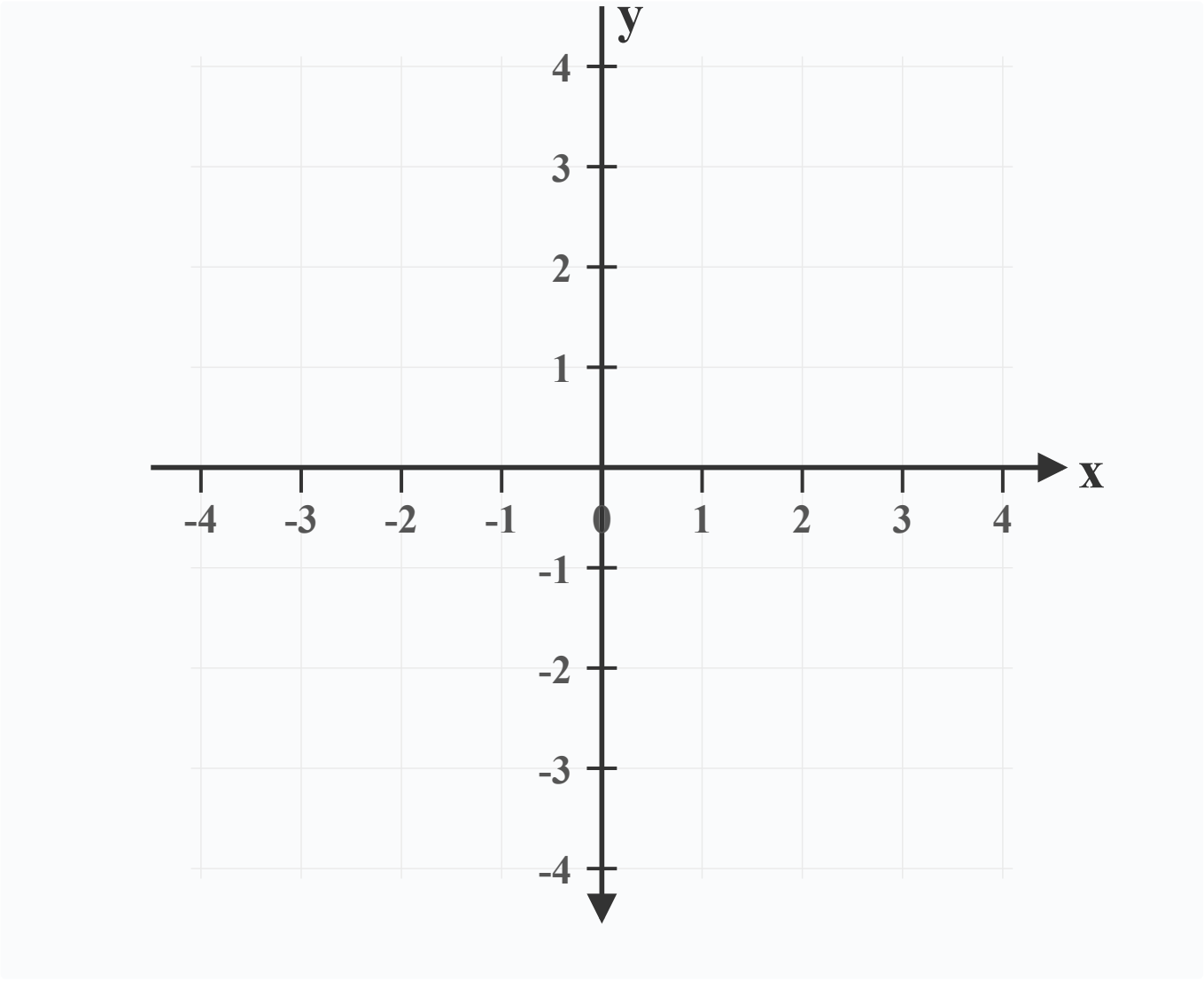
D_0 (0, −1) D_1 (2, −1)

Calculate:

Distance from C_1 to D_0 =

Distance from C_0 to D_1 =

Distance from C_1 to D_1 =



c) Points and Distances

Plot the following four points:

E_0 $(-2, 0)$ E_1 $(-2, 3)$

F_0 $(0, -2)$ F_1 $(-2, -2)$

Calculate:

Distance from E_1 to F_0 =

Distance from E_0 to F_1 =

Distance from E_1 to F_1 =