

TikZ Coordinate Tutorial (Legacy Version)

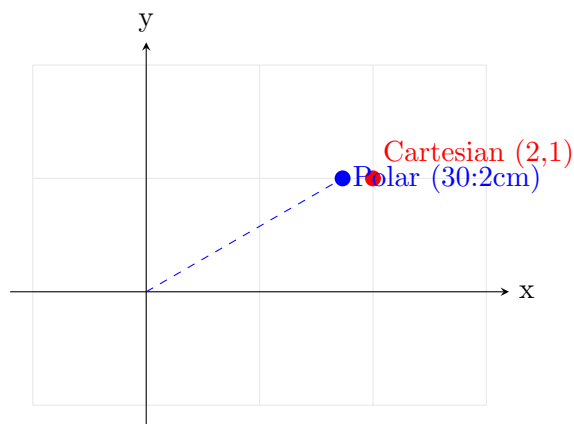
Compatible with TikZ 2.x

January 29, 2026

1 Coordinate Systems

TikZ supports two main ways to define a point:

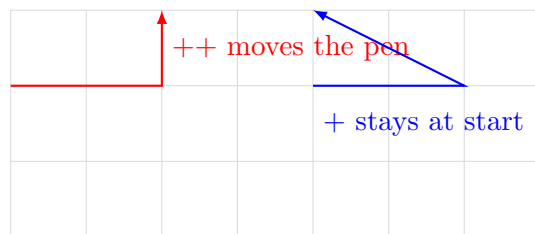
- **Cartesian:** (x, y) — e.g., $(2, 1)$
- **Polar:** $(\text{angle}:\text{distance})$ — e.g., $(30:2\text{cm})$



2 Relative Coordinates: ++ vs +

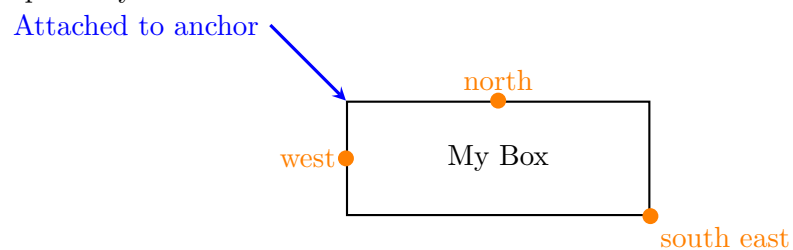
This is the most important concept for drawing paths.

- **++ (Cumulative):** Moves the "pen" to the new location.
- **+ (Non-cumulative):** Draws to the point but returns the "pen" to the previous location.



3 Node Anchors

Nodes have "sticky" points called anchors. You can use these to connect lines precisely.



4 Common Old-Style Arrows

Here are the arrow types available in your version:

—————→ stealth

—————→ latex

—————→ to (default)

○————○ o (circle)