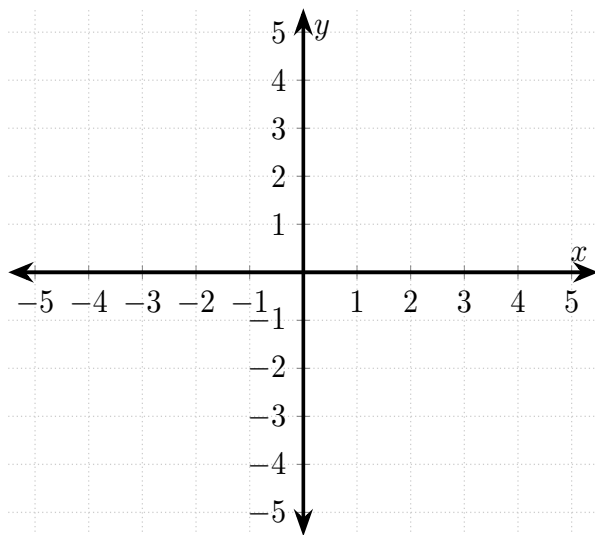# LaTeX pgfplots EXAMPLES

Jeff DeCola

This will draw a blank Coordinate Plane (2D Number Plane),

```
\resizebox{8cm}{8cm}{%
    \begin{tikzpicture}
    \begin{axis}[
        title={Coordinate Plane (2D Number Plane)},
        axis lines=middle,
        axis line style={Stealth-Stealth,very thick},
        xlabel=$x$,
        ylabel=$y$,
        xmin=-5.5,xmax=5.5,ymin=-5.5,ymax=5.5,
        xtick distance=1,
        ytick distance=1,
        grid=major,
        grid style={thin,densely dotted,black!20}
    ]
    \end{axis}
    \end{tikzpicture}
}
```
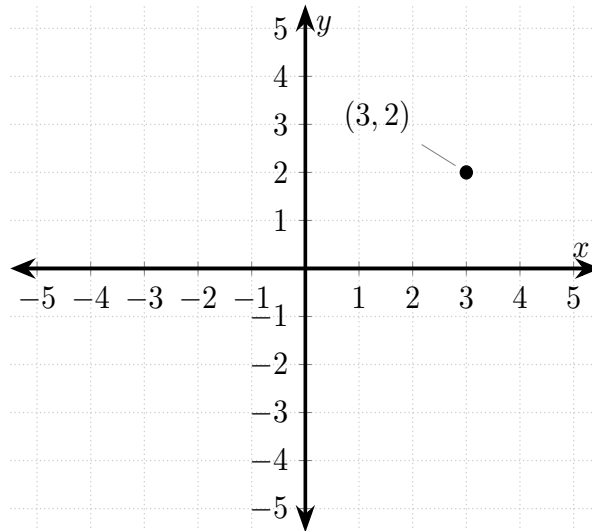
Coordinate Plane (2D Number Plane)

Coordinate Plane with coordinates $(3, 2)$**,**

```
\addplot[
    mark=*
    ]
    coordinates {(3,2)}
    node[pin=150:{$(3,2)$}]{};
```
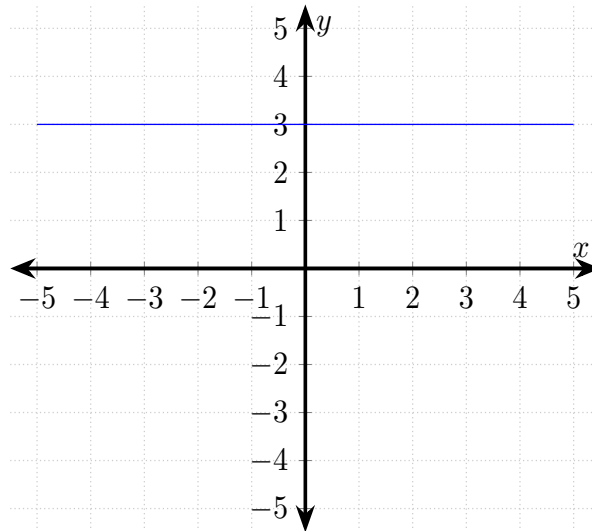
Coordinate Plane (2D Number Plane)

$(3, 2)$

Coordinate Plane with blue line at $y = 3$,

```
\addplot [
    color=blue ,
    mark=none
    ]
    {+3};
```

Coordinate Plane (2D Number Plane)

Coordinate Plane with red equation $y(x) = 2x + 1$,

```
ylabel={$f(x)$},
\addplot[
    domain= -7:7,
    samples=50,
    color=red
    ]
    {2*x + 1};
```

Coordinate Plane (2D Number Plane)

$f(x) = 2x + 1$