

☐

I'm not robot


reCAPTCHA

Continue

Mathematica plot point labels

Label lines: To display the line equation when the cursor reaches the chart, use tooltip: Plot with Title, Plot[Tooltip[Sin[x]], {x, 0, 8 Pi}] To place text/title in a photo, use Epilog: Plot[Sin[x], {x, 0, 8 Pi}, Epilog -> Text[My Text, Offset[{32, 0}, {14, Sin[14]}]] You can place a title under the chart. The title below (shown in the notebook). Clear[x]; Labels[Plot[Sin[x^2 x, {x, -3, 3}, ImageSize -> 300], Text@TraditionalForm@Style[Sin[x^x], 16]] Labels are included in the chart. To write labels in a chart: fns[x_] := {1 + x^3, 2 + 8*x}; len := Length[fns[x]]; Plot[Evaluate[fns[x]], {x, 0, 6}, Epilog -> Table[Inset[Framed[DisplayForm[fns[x][[i]]], RoundingRadius -> 5], {5, fns[5][[i]]}], Background -> White], {i, len}]] You can do something similar with locators that let you move labels anywhere: Figures with fns locators[x_] := {Log[x], Exp[2^x], Sin[4^x], Cos[6^x]}; DynamicModule[{pos = Table[{1, fns[1][[i]]}], {i, len}]], LocatorPane[Dynamic[pos], Plot[Evaluate[fns[x]], {x, 0, 1.8}], Appearance -> Table[Framed[Text@TraditionalForm[fns[x][[i][[i]]], RoundingRadius -> 5, Background -> White], {i, len}]] Export[label2.png,%] You can use PlotLegends (which are not visible in the chart, but in Mathematica notebook): Drawing with legends f[a_, x_] := 1/((1 - x) (1 + a/(1 - x)^2)); parameters = {0, 0.01, 0.02, 0.05, 0.1}; Plot[Evaluate[f[#, x] & /@ parameters], {x, 0, 1}, PlotRange -> {0, 5}, PlotLegends -> Table[Row[{a=, j}], {j, parameters}]] Instead of PlotLegends, you can use PlotLabels Figure with labels f[a_, x_] := 1/((1 - x) (1 + a/(1 - x)^2)); parameters = {0, 0.01, 0.02, 0.05, 0.1}; Plot[Evaluate[f[#, x] & /@ parameters], {x, 0, 1}, PlotRange -> {0, 5}, PlotLabels -> Table[Row[{a=, j}], {j, parameters}]] Plotting with and without axes There are times when axes can interfere with the display of certain ODE features and solutions. Fortunately, getting rid of the axes in the latest versions of Mathematica is very easy. One way to specify an axis is to use the above options, but there is also a visual method for changing the axis. Let's plot $f(x) = 2\sqrt{\sin 3x - 2\cos x}$ without coordinates, but using green color and font size 12 for abscissa: Drawing with cut off only f[x_] = 2*Sin[3*x] - 2*Cos[x] Plot[f[x], {x, 0, 2*Pi}, PlotStyle -> {Thick, Blue}, Axes -> {True, False}, AxesStyle -> Directive[Green, 12]] You can also use different colors and fonts for different axes. Two-axis drawing Chart[f[x], {x, 0, 2*Pi}, PlotStyle -> {Thick, Blue}, Axes -> {True}, AxesStyle -> Directive[Green, 12], Red]] You can plot two charts in the same illustration: Chart[{-1, 1} Sqrt[1 - x^2], {x, -1, 1}, PlotStyle -> {Thickness[0.007], Black}, AspectRatio -> Automatic, PlotLabel -> Circle, LabelStyle -> Italic]] You can label the graph with Epilog option: Plot[{-1, 1} Sqrt[1 - x^2], {x, -1, 1}, PlotStyle -> {Thickness[0.007], Black}, AspectRatio -> Automatic, Epilog -> Text[Style[Circle, FontSize -> 16], {0.6, 0.4}]] We can also add title in different styles: Plot[f[x], {x, 0, 2*Pi}, PlotStyle -> {Thick, Blue}, Axes -> {True}, AxesStyle -> Directive[Green, 12], Red], PlotLabel -> 2*Sin[3*x] - 2*Cos[x]], PlotStyle -> {Thick, Blue}, Axes -> {True}, AxesStyle -> Directive[Green, 12], Red], PlotLabel -> Style[Framed[2*Sin[3*x] - 2*Cos[x]], 16, Black, Background -> Lighter[Yellow]] We show how to present data using GraphicsGrid command: GraphicsGrid[Partition[Table[Show[CountryData[c], Flag], PlotLabel -> c], {c, Return to Mathematica page Return to the main page (APMA0350) Return to the Part 1 (Plotting) Return to the Part 2 (First Order ODEs) Return to the Part 3 ical Methods Return to the Part 4 (Second and Higher Order ODEs) Back to Part 5 (Series and Cycles) Back to Part 6 (Laplace Transformation) Back to Part 7 (Boundary Value Issues) Text can be used in the epilogue of 2D charts. For example (using the specified functions and lines. I removed The Show because I wasn't sure why it was required: plots = Plot[q[x], {x, 0, 1}, Epilog -> Directive[{Thick, Red, Dashed}], line1, line2, Green, PointSize[0.02], Point[{1/3, q[1/3]}], Black, Dashing[0], Text[Framed[Label, Background -> White], {1/3, q[1/3]}], #]], AxesLabel -> {HoldForm[Posição na Barra], HoldForm[Carga]}, PlotLabel -> Column[{HoldForm[Distribuição da Carga na Barra], Row[{offset, #}]]], LabelStyle -> {GrayLevel[0]}, ImageSize -> 300] & /@ {Automatic, {0, 0}, {0, 1}, {1, 0}, {1, 1}, {0, -1}, {-1, 0}, {-1, -1}}; Grid[Partition[parcel, 2]] GUIDEThe Wolfram Language provides a rich language for adding labels to graphics of all types. Labels and explanations can be applied directly to plotted data and functions or specified in a structured form by means of options. In addition to text, you can use any content, such as formulas, graphics, and images, as a label. Labels can be placed automatically or specifically relative to points, curves, and other graphic objects. PlotLabel - General Graphic LabelAxesLabel - Labels for Each Axis in FrameLabel Graphics - Labels for Frame Sides AroundLabelStyle - Style Used for LabelsText - Places Any Text or Expression in graphicAxesStyle • FrameStyle • Ticks • FrameTicks • TicksStyle • FrameTicksStyleVisualization LabelsLabeled or callout chart elements - wrapper for adding callouts to points and curvesPlaced - wrapper that specifies the relative arrangement of the LabelPlotLabels - labels for and curves in plotsChartLabels — categorical categorical for Chart ElementsLabelingFunction - Generate Labels for Points and Chart ElementsLabelingSize - Maximum Size to Use for EventLabels • EventLabels • GaugeLabels • MeshCellLabel • VertexLabels • VertexLabelStyle • EdgeLabels • EdgeLabelStyle • CommunityLabels • GeoLabelsCalloutout OptionsCalloutMarker - Tag used for calloutCalloutStyle checkpoint - Style used for CalloutsLeaderSize - How to draw a callout leaderLegend » Legended - Displaying an expression with the legendPlotLegends - Legends for points and curves in plotsChartLegends - Legends for chart elementsLineLegend • Swatchlegend • PointLegend • • BarLegend ... Below I try to plot the knot of the stick in 3 dimensions. I would like to mark each of the points in order of p1, p2, p3... p6 or even only 1, 2, 3, ... 6 is enough. How do I do this? ' P1 = {0.300775, 1.301248, -0.702434} P2 = {-0.976281, -0.910795, 0.701983} P3 = {0.976171, -0.910795, -0.702076} P4 = {-0.300495, 1.300967, 0.702620} P5 = {-1.276451, -0.390204, -0.702474} P6 = {1.276282, -0.390420, 0.702381} Node = {P1, P2, P3, P4, P5, P6, P1} Show[Graphics3D[Line[Knot]], Graphics3D[Point[Knot]], Axes -> True, AxesLabel -> {x, y, z}] ' Here's the exit picture: output: