

(* Simple plotting of functions in R^2 and R^3 .

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Source: <https://github.com/MarkGotLasagna/ai/>

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This extract comes from Mathematica's notebook conversion into PDF. *)

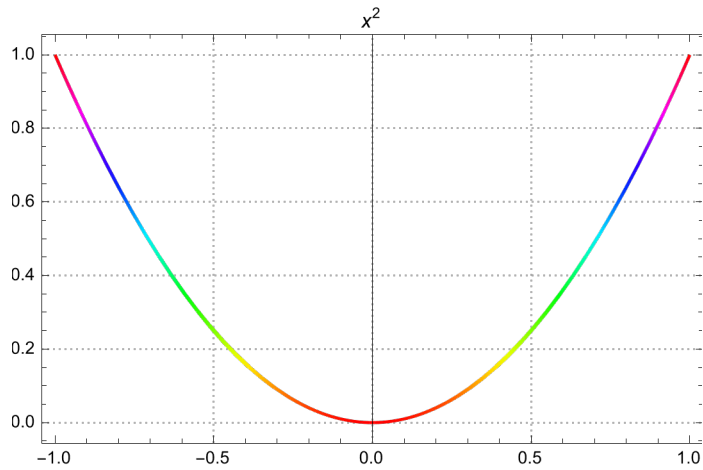
In[1078]:=

```

myR2Function := x^2; (*Your function to be plotted*)
(*Plot[{f},{range}]
  {range}--> Change the range according to
  your preferences aka the most interesting part of the plot
  {ColorFunction->Function[{coordinates},Hue[coordinate]]} -->
  Change the Hue of your function based on either x or y*)
Plot[myR2Function, {x, -1, 1}, ColorFunction -> Function[{x, y}, Hue[y]],
  Axes -> True, AxesLabel -> Automatic, AxesStyle -> Black,
  PlotLabel -> myR2Function, PlotTheme -> "Detailed"]

```

Out[1079]=



In[1086]:=

(*Plotting functions in 3D space*)

myR3Function := $x^2 - 40x + 4y^2 + 400$;

(*Plot3D[{f},{x},{y}] --> change x and y to most relevant parts of the function*)

Plot3D[myR3Function, {x, -1, 41}, {y, -1, 1}, PlotRange -> All,

BoxRatios -> {10, 10, 4}, ColorFunction -> Function[{x, y, z}, Hue[.65 (1 - z)]],

AxesLabel -> Automatic, PlotLabel -> myR3Function,

PlotStyle -> PointLight[White, {1, 1, 1}], PlotPoints -> 50, PlotTheme -> "Detailed"]

Out[1087]=

