(* Simple plotting of functions in R^2 and R^3.
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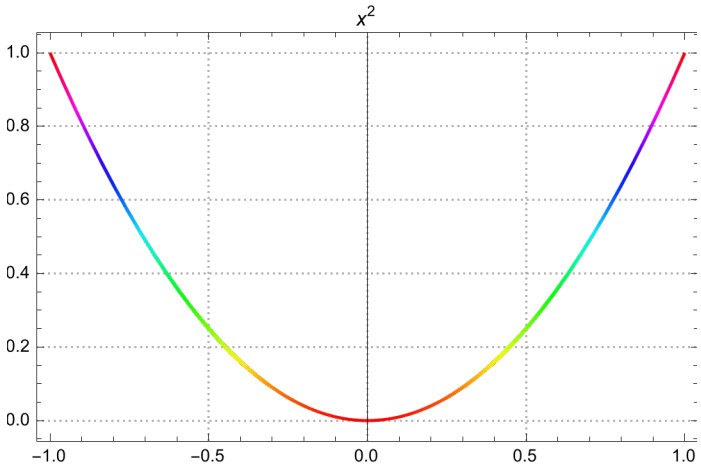
Source: https://github.com/MarkGotLasagna/ai/

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 - 40 x + 4 y^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]=