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(* Comments in Mathematica are written inside parenthesis and star. Start
  by opening Wolfram Mathematica (see program list). Take latest
  version maybe 9.0 or 10.0. Choose a New notebook from File in the
  menu. Start by calculating 1+3,type it and press Shift+Enter*)
1 + 3
(* Hopefully the kernel (the part that is calculating)
     gave the right answer :). Note In and Out and the sharp
  brackets to the very right. These brackets define the so called
  cells. Next we go on by calculating 3/7. Don't forget Shift+Enter.

3 / 7
(* Oops what happend? Mathematica tries always
 to be exact! If you what decimals you write instead *)

N[3 / 7]

(* Commands in Mathematica always begins with
 capital letters. Calculate sinus for π/6. Note S and P.*)
Sin[Pi / 6]

(* Guess what the command below is? Calculate it! Note also big S here.*)
Sqrt[5]

(* Time to run a little program. 4 lines. Note ;
to the right. Then you avoid that the lines are printed on the
 screen. Note you can use space instead of star for multiplication.*)
a = 2;
b = 7;
c = a b;
Print["c=", c]

(* Now we calculate sum of the first 50 inverted squares. 1 + 1/4 + 1/9 +....
   +1/2500. Note the command Sum for doing this. Mark Sum with the
 mouse and go Help in the menu and choose Find Selected Function. A
 new box pops up and you can read a lot about Sum. Note ^ for
 powers and curly brackets {k,1,50} which means k runs from
 1 to 50. If you are not happy with the output try NSum*)
Sum[1 / (k^2), {k, 1, 50}]

(* Finally we will make a plot that we will export to the LaTeX-
 file and finally it will come to the pdf. Two curves,
the exponential and cosine, from -3 to 1.*)
plot1 = Plot[Exp[t], {t, -3, 1}, PlotRange → {-1, 3}];
plot2 = Plot[Cos[t], {t, -3, 1}, PlotRange → {-1, 3}];
(* In fact you can do it on one line by
 Plot[{Cos[t],Exp[t]},{t,-3,1},PlotRange→{-1,3}]*)
Show[plot1, plot2]
(* How to get this plot into your LaTeX-document? Do you se the bracket
  to the very right of the figure? Click on that one. Under File you select
  Save Selection As. In box Save As Type I choose EPS and give it a name,
for example two_curves, and Save. Important that your eps file and your tex-
 file are in the same folder.*)
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