



$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{x^2}{2\sigma^2}}$$

$\sigma = 0.5$

```

\usepackage{pst-plot}
\usepackage{pstricks-add}
\usepackage{amsmath}
%
\def\pshlabel#1{\footnotesize#1}\def\psvlabel#1{\footnotesize#1}
%
\begin{document}

\psset{yunit=4cm,xunit=4}
\begin{pspicture}(-2,0)(2,1)
% \psgrid[griddots=10,gridlabels=0pt, subgriddiv=0]
\psaxes[Dy=0.25]{->}(0,0)(-2,0)(2,1)
\uput[-90](2,0){x}\uput[0](0,1){y}
\rput[lb](1,0.75){$\sigma = 0.5$}
\rput[lb](-2,0.5){$f(x)=\frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{x^2}{2\sigma^2}}
\psplot[linecolor=red, linewidth=2pt]{-1.8}{1.8}{%
/sigma 0.5 def
/e 2.718282 def
/C 1 sigma div 6.2831 sqrt div def
e x dup mul 2 div sigma dup mul div neg exp C mul}
\end{pspicture}

```