```
\documentclass{article}
\usepackage{pstricks}
\usepackage{pst-plot}
\usepackage{pst-lens}
%
\psset{unit=1.75cm}
%
\def\PSTBox{%
  \rput[lb](0,0){%
  \begin{minipage}{9cm}%
      \pscustom[fillstyle=solid,fillcolor=black!10]{%
        \psline(0.5,0)(0.5,2.3)
        \psecurve(0,1.8)(0.5,2.3)(2,2.7)(3,2.4)(4.5,1.6)(5,1.5)
        \psline(4.5,1.6)(4.5,0)(0.5,0)}%
    \psaxes[labels=none,ticks=none]{->}(0,0)(-.2,-.2)(5,3)%
    \psframe[fillstyle=solid,fillcolor=cyan](1.65,0)(2.35,2.7)
    \pscurve[linewidth=1pt](0,1.8)(0.5,2.3)(2,2.7)(3,2.4)(4.5,1.6)(5,1.5)%
    \uput[r](5,1.5){$y=\mathrm{f}(x)$}%
    \uput[d](2,0){$\mathrm{d}x$}\psdot(2,2.7)%
    \uput[d](0.5,0){$a$}\uput[d](4.5,0){$b$}%
    \uput[r](5,0){$x$}\uput[l](0,3){$y$}%
    \psline(2,0)(2,2.7)\uput[ur](2,2.7){$(x,y)$}%
    \psline(.95,0)(2.95,0)\psline(1.65,0)(1.65,1)\psline(2.35,0)(2.35,1)%
    \uput[d](1.65,0){$x$}\uput{10pt}[d](2.4,0){$x+\mathrm{d}x$}%
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\end{minipage}}}
\begin{document}

\psframebox[shadow=true]{%
\begin{pspicture}(-1,-1.5)(6.2,3.5)
\PSTBox%
%\PstLens[LensSize=1.5,LensRotation=75,LensMagnification=1.5](2,0.2){\PSTBox}
\end{pspicture}}

\begin{verbatim}
```