This lab concerns different file formats: \TeX (and \LaTeX \texttt{.tex}), device-independent typesetter (\texttt{.dvi}), Postscript (\texttt{.ps}), “distilled” Postscript (\texttt{.pdf}), and Jpeg (\texttt{.jpg}).

1. Get the sample \LaTeX file \texttt{sample.tex} from the \$\texttt{HOME} directory of the \texttt{demo} user, i.e. \texttt{cp /usr/stu/demo/sample.tex} . \texttt{< cr >}

2. Run \LaTeX (twice) on the file to produce a device-independent typesetter file \texttt{sample.dvi}:
   \texttt{latex sample < cr >}
   \texttt{latex sample < cr >}
You can preview the \texttt{sample.dvi} file using \texttt{xdvi} as follows
   \texttt{xdvi sample.dvi & < cr >}

3. Convert the device-independent typesetter file to the Postscript file \texttt{sample.ps} via
   \texttt{dvips sample.dvi < cr >}
The resulting Postscript file could be sent directly to an HP-Laserjet printer, e.g.
   \texttt{lpr -Pcs4050ps sample.ps < cr >}

4. Convert the Postscript file \texttt{sample.ps} to the “distilled” Postscript file \texttt{sample.pdf} via
   \texttt{ps2pdf sample.ps < cr >}
and ignore the warning about the bad first byte. Check that this \texttt{.pdf} file is suitable for, say, web-viewing, by using Acrobat reader:
   \texttt{acroread sample.pdf & < cr >}

5. Convert the first page of the “distilled” Postscript file \texttt{sample.pdf} (which you are viewing) to a Jpeg file \texttt{sample.jpg} by using the window grab feature of the program \texttt{xv}.

**Assignment** Uuencode the the file \texttt{sample.jpg} you made in \texttt{part 5}. using the program \texttt{uuencode}:
\begin{verbatim}
cat sample.jpg | uuencode sample_dup.jpg > sample.uee < cr >
\end{verbatim}
The file \texttt{sample.uee} should be a text-encoding of the binary Jpeg file. Test the correctness of this encoding by doing
\begin{verbatim}
uudecode sample.uee < cr >
cmp sample.jpg sample_dup.jpg < cr >
\end{verbatim}
The files should be the same. When you are sure that your work is correct include (don’t attach) your file \texttt{sample.uee} in an e-mail to me.