SIPB
Student Information Processing Board
Room W30-557 x3-7788

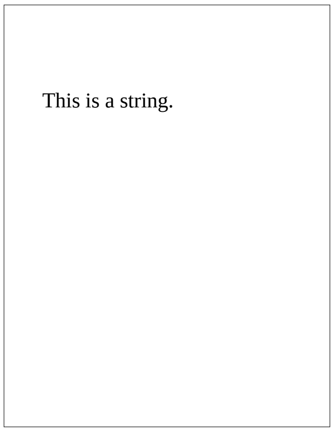
Programming in PostScript®
Text and CTM
Session 2

```
%!
%  Program 1 --- simple text displaying
%

/Times-Roman findfont         %  Select the font ‘‘Times-Roman’’
40 scalefont                  %  Make it 40-point size
setfont                       %  Use it

72 600 moveto                 %  Lower-left corner of first character
(This is a string.) show      %  Print it

showpage
```



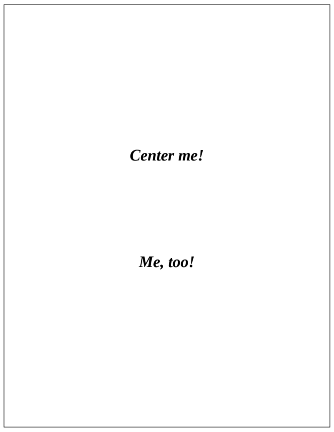

```
%!
%  Program 2 --- center the text
%

/Times-BoldItalic findfont    %  Select the font ‘‘Times-BoldItalic’’
30 scalefont                  %  Make it 30-point size
setfont                       %  Use it

(Center me!)                  %  Make a string
dup                           %  Make two copies of the string
stringwidth                   %  Convert string to x-size, y-size
pop                           %  We don’t want y-size, which is 0 anyway
2 div                         %  Take half the width,
4.25 72 mul exch sub          %  And subtract it from the center of the page
500 moveto                    %  Pick the y-coordinate and go there
show                          %  We already have a copy of this on the stack

(Me, too!)                    %  It works for any string
dup                           %  Make two copies of the string
stringwidth                   %  Convert string to x-size, y-size
pop                           %  We don’t want y-size, which is 0 anyway
2 div                         %  Take half the width,
4.25 72 mul exch sub          %  And subtract it from the center of the page
300 moveto                    %  Pick the y-coordinate and go there
show                          %  We already have a copy of this on the stack

showpage
```




```
%!
%  Program 3 --- changing the coordinate system
%

/Times-Roman findfont 36 scalefont setfont   % half-inch times-roman letters

0 0 moveto (G) show           %  Puts a G down

gsave                         %  Saves the "CTM"

72 72 translate
0 0 moveto (G) show
-72 -72 translate

144 72 translate
30 rotate
0 0 moveto (G) show
-30 rotate

72 0 translate
0 0 moveto (G) show

30 rotate
144 72 translate
0 0 moveto (G) show

grestore                      %  Restores the "CTM"

gsave

72 500 translate
0 0 moveto (G) show
2 2 scale
(G) show                      %  Double-size
.5 1 scale
(G) show                      %  Normal-width, double-height
2 .5 scale
(G) show                      %  Double-width, normal-height
.5 1 scale
300 0 translate
0 0 moveto
-1 1 scale
(G) show                      %  Mirror, mirror, on the wall...

grestore

showpage
```