

☞ `\leaders` *<box or rule>* *<skip command>*  
`\cleaders` *<box or rule>* *<skip command>*  
`\xleaders` *<box or rule>* *<skip command>*

These commands produce leaders, i.e., they fill a horizontal or vertical space with copies of a pattern (see “leaders”, p. ‘leaders’). The *<box>* or *<rule>* specifies a leader, i.e., a single copy of the pattern, while the *<skip command>* specifies a window to be filled with a row or a column of the leaders. The pattern is repeated as many times as will fit into the window. If *<skip command>* is a horizontal skip, the window contains a row of leaders and T<sub>E</sub>X must be in a horizontal mode; if *<skip command>* is a vertical skip, the window contains a column of leaders and T<sub>E</sub>X must be in a vertical mode.

The commands differ in how they arrange the repeated pattern in the space and where they put any leftover space:

- For `\leaders`, T<sub>E</sub>X aligns a row of leaders with the left end of the innermost box *B* that is to contain the result of the `\leaders` command. It aligns a column of leaders with the top of *B*. Those leaders that fall entirely within the window are retained. Any leftover space at the top and bottom of the window is left empty.
- For `\cleaders`, the leaders are centered within the window.
- For `\xleaders` the pattern is uniformly distributed throughout the window. If the leftover space is *l* and the leader is repeated *n* times, T<sub>E</sub>X puts space of width or height  $l/(n+1)$  between adjacent leaders and at the two ends (left and right or top and bottom) of the leaders.

*Example:*

```
\def\pattern{\hbox to 15pt{\hfil.\hfil}}
\line{Down the Rabbit-Hole {\leaders\pattern\hfil} 1}
\line{The Pool of Tears {\leaders\pattern\hfil} 9}
\line{A Caucus-Race and a Long Tale {\cleaders\pattern
\hfil} 19}
\line{Pig and Pepper {\xleaders\pattern\hfil} 27}
```

*produces:*

Down the Rabbit-Hole	. . . . .	1
The Pool of Tears	. . . . .	9
A Caucus-Race and a Long Tale	. . . . .	19
Pig and Pepper	. . . . .	27

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*Example:*

```
\def\bulletfill{\vbox to 3ex{\vfil\hbox{$\bullet$}\vfil}}%
\def\mybox{\vbox to 1in}
\def\myrule{\hrule width 4pt}\hsize=2in
\hrule \line{%
  \mybox{\myrule depth 8pt \leaders\bulletfill\vfill}
  \hfil
  \mybox{\myrule depth 15pt \leaders\bulletfill\vfill}
  \hfil
  \mybox{\myrule depth 18pt \cleaders\bulletfill\vfill}
  \hfil
  \mybox{\myrule depth 12pt \xleaders\bulletfill\vfill}}%
}\hrule
```

