

```
\magnification = <number>
\mag      [ <number> parameter]
```

An assignment to `\magnification` establishes the “scale factor” f that determines the magnification ratio of your document (see “magnification”, p. ‘magnification’). The assignment to `\magnification` must occur before the first page of your document has been shipped out.

The assignment sets f to *<number>* and also sets `\hsize` and `\vsize` respectively to `6.5true in` and `8.9true in`, the values appropriate for an 8½-by-11-inch page. f must be between 0 and 32768. The magnification ratio of the document is $f/1000$. A scale factor of 1000 provides unit magnification, i.e., it leaves the size of your document unchanged. It’s customary to use powers of 1.2 as scale factors, and most libraries of fonts are based on such factors. You can use the `\magstep` and `\magstephalf` commands to specify magnifications by these factors.

`\magnification` is not a parameter. You can’t use it to *retrieve* the scale factor. If you write something like `\dimen0 = \magnification`, T_EX will complain about it.

The `\mag` parameter contains the scale factor. Changing the value of `\mag` rescales the page dimensions, which is not usually what you want. Therefore it’s usually better to change the magnification by assigning to `\magnification` rather than to `\mag`.

Example:

```
\magnification = \magstep2
% magnify fonts by 1.44 (=1.2x1.2)
```