

Changing font sizes in equations II

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The first example file illustrated how you could take advantage of predefined sizes of various maths elements to override the default font sizes. This unfortunately does not allow you to actually specify the exact size though.

Another approach is to use the `\DeclareMathSizes` command to select your preferred sizes. You can only define sizes for `\displaystyle`, `\textstyle`, etc. One potential downside is that this command sets the global maths sizes, as it can only be used in the document preamble.

However, it's fairly easy to use: `\DeclareMathSizes{ds}{ts}{ss}{sss}`, where `ds` is the *display size*, `ts` is the *text size*, etc. In this document, the math sizes have been made much larger than necessary to illustrate that the changes have taken place.

$$x = a_0 + \frac{1}{a_1 + \frac{1}{a_2 + \frac{1}{a_3 + a_4}}} \quad (1)$$

NB the changes only take place if the value in the first argument matches the current document text size. It is therefore common to see a set of declarations in the preamble, in the event of the main font being changed. E.g.,

```
\DeclareMathSizes{10}{18}{12}{8}    % For size 10 text
\DeclareMathSizes{11}{19}{13}{9}    % For size 11 text
\DeclareMathSizes{12}{20}{14}{10}   % For size 12 text
```