Changing font sizes in equations

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Probably a rare event, but there may be a time when you would prefer to have some control of the size. For example, using text-mode maths, by default a simple fraction will look like this: $\frac{1}{2}$ where as you may prefer to have it displayed larger, like when in display mode, but still keeping it inline, like this: $\displaystyle\frac{1}{2}$.

A simple approach is to utilise the predefined sizes for maths elements:

`\displaystyle`	Size for equations in display mode
`\textstyle`	Size for equations in text mode
`\scriptstyle`	Size for first sub/superscripts
`\scriptscriptstyle`	Size for subsequent sub/superscripts

A classic example to see this in use is typesetting continued fractions. The following code provides an example.

```
\begin{equation}
  x = a_0 + \frac{1}{a_1 + \frac{1}{a_2 + \frac{1}{a_3 + a_4}}}
\end{equation}
```

$$x = a_0 + \cfrac{1}{a_1 + \cfrac{1}{a_2 + \cfrac{1}{a_3 + a_4}}} \tag{1}$$

As you can see, as the fractions continue, they get smaller (although they will not get any smaller as in this example, they have reached the `\srciptscriptstyle` limit. If you wanted to keep the size consistant, you could declare each fraction to use the display style instead, e.g.,

```
\[ x = a_0 + \frac{1}{\displaystyle a_1
          + \frac{1}{\displaystyle a_2
          + \frac{1}{\displaystyle a_3 + a_4}}}\]
```

$$x = a_0 + \cfrac{1}{\displaystyle a_1 + \cfrac{1}{\displaystyle a_2 + \cfrac{1}{\displaystyle a_3 + a_4}}} \tag{2}$$