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An important note about small errors

If I enter

```
x = 1/3
```

and then enter `x` to see the value Python is using, it does this

```
>>> x
0.3333333333333333
```

This may be fine, but sometimes with numeric computation, small errors can creep into the calculations which are because the computer is storing an approximation of the actual value.

I can ask SymPy to use the exact (symbolic) value using a command `S()`. For example, if I enter

```
x = S('1/3')
```

and then enter `x` to see the value Python is using, it does this

```
>>> x
1/3
```

SymPy is now not using an approximation, but is treating the values I gave it as a fraction made of two integers. This can avoid small errors in computation.