

# Representation

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# Announcements

# String Representations

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The **str** and **repr** strings are often the same, but not always

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(Demo)



## F-Strings

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(Demo)

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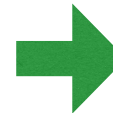
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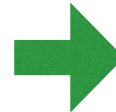
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### Example:

Classes that implement `__repr__` that returns a Python-evaluatable string implements an interface for producing machine-readable string representations

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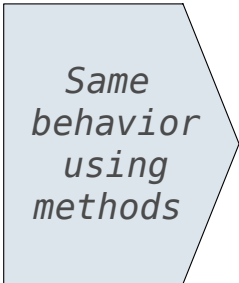
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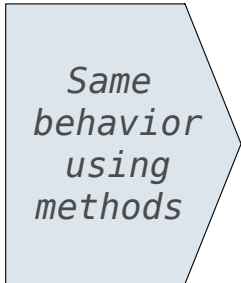
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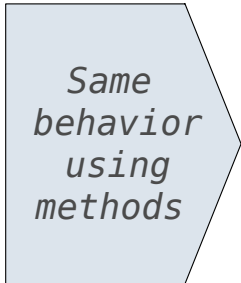
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3
```

## Special Method Names in Python

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Certain names are special because they have built-in behavior

These names always start and end with two underscores

<code>__init__</code>	Method invoked automatically when an object is constructed
<code>__repr__</code>	Method invoked to display an object as a Python expression
<code>__add__</code>	Method invoked to add one object to another
<code>__bool__</code>	Method invoked to convert an object to True or False
<code>__float__</code>	Method invoked to convert an object to a float (real number)

```
>>> zero, one, two = 0, 1, 2
>>> one + two
3
>>> bool(zero), bool(one)
(False, True)
```

*Same  
behavior  
using  
methods*

```
>>> zero, one, two = 0, 1, 2
>>> one.__add__(two)
3
>>> zero.__bool__(), one.__bool__()
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```

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<http://getpython3.com/diveintopython3/special-method-names.html>

<http://docs.python.org/3/reference/datamodel.html#special-method-names>

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(Demo)

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>>> from math import pi
>>> Ratio(1, 3) + pi
3.4749259869231266
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