

Python 2.6.5 |CUSTOM| (r265:79063, May 28 2010, 15:13:03)
Type "copyright", "credits" or "license" for more
information.

IPython 0.11.dev -- An enhanced Interactive Python.
? -> Introduction and overview of IPython's
features.
%quickref -> Quick reference.
help -> Python's own help system.
object? -> Details about 'object', use 'object??' for
extra details.
%gui -> A brief reference about the graphical user
interface.

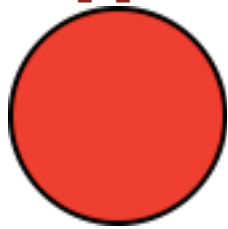
```
In [1]: from IPython.core.display import display,  
display_pretty, display_html,\br/>...:     display_svg, display_png
```

```
In [2]: class Circle(object):  
...:  
...:     def __pretty__(self, p, cycle):  
...:         return p.text(u"\u25EF")  
...:  
...:     def __svg__(self):  
...:         return """<svg version="1.1"  
...:             xmlns="http://www.w3.org/2000/svg">  
...:             <circle cx="100" cy="50" r="40"  
stroke="black"  
...:                 stroke-width="2" fill="red"/>  
...:             </svg> """  
...:  
...:     def __html__(self):  
...:         return "<h1>This is a Circle!</h1>"  
...:
```

```
In [3]: c = Circle()
```

```
In [4]: c
```

Out[4]:



In [5]: display(c)



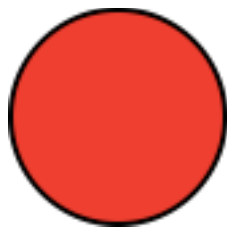
In [6]: display_pretty(c)

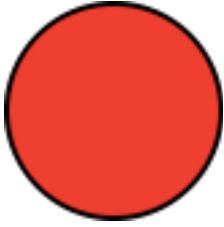


In [7]: display_html(c)

This is a Circle!

In [8]: for i in range(3):
...: display(c)





```
In [9]: %load_ext sympy_printing
```

```
In [10]: from sympy import *
```

```
In [11]: x,y,z = symbols('xyz')
```

```
In [12]: alpha = Symbol('alpha')
```

```
In [13]: x**2
```

```
Out[13]:
```

$$x^2$$

```
In [14]: e = (x + alpha)**3
```

```
In [15]: e
```

```
Out[15]:
```

$$(\alpha + x)^3$$

```
In [16]: e.expand()
```

```
Out[16]:
```

$$3\alpha x^2 + 3x\alpha^2 + \alpha^3 + x^3$$

```
In [17]:
```