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## complex()

`complex()` returns a complex number with the value `real + imag*1j` or converts a string or number to a complex number.

If the first parameter is a string, it will be interpreted as a complex number and the function must be called without a second parameter. The second parameter can never be a string. Each argument may be any numeric type (including complex). If `imag` is omitted, it defaults to zero and the constructor serves as a numeric conversion like `int` and `float`. If both arguments are omitted, returns `0j`.

If you are doing math or engineering that requires complex numbers (such as dynamics, control systems, or impedance of a circuit) this is a useful tool to have in Python.

Let's see some examples:

```
In [1]: # Create 2+3j
        complex(2,3)
```

```
Out[1]: (2+3j)
```

```
In [2]: complex(10,1)
```

```
Out[2]: (10+1j)
```

We can also pass strings:

```
In [3]: complex('12+2j')
```

```
Out[3]: (12+2j)
```

That's really all there is to this useful function. Keep it in mind if you are ever dealing with complex numbers in Python!