

You've Already Been Using Methods

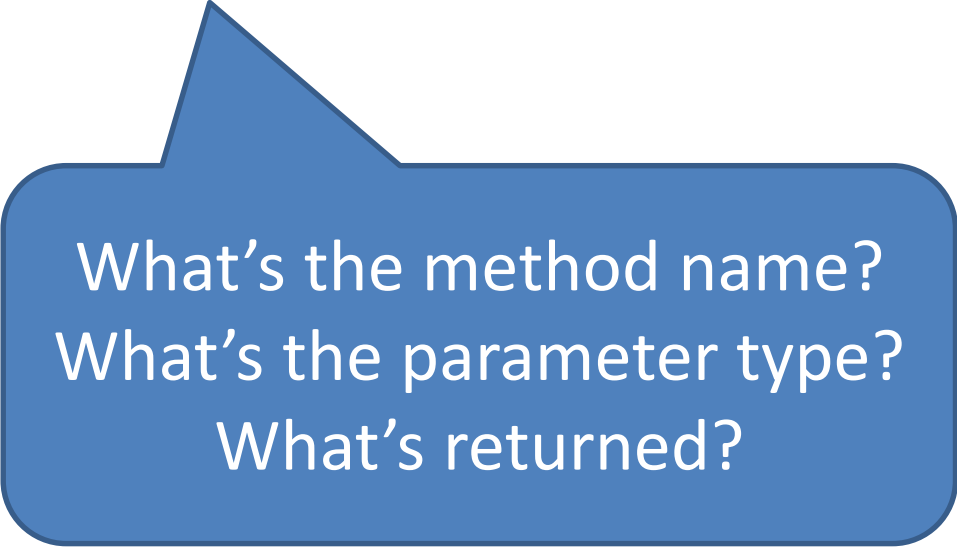
It's sad but true....



This is a method call

– you can tell because it's got brackets....

```
System.out.println("Hello world");
```

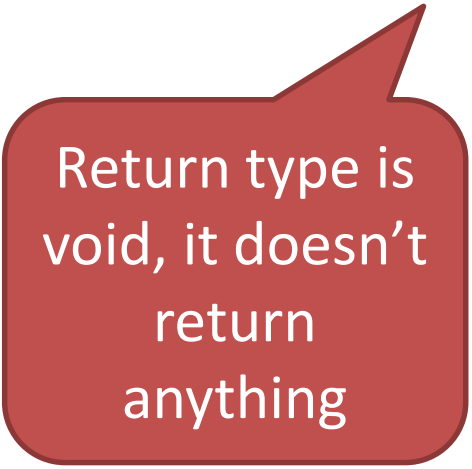


What's the method name?
What's the parameter type?
What's returned?

This is a method call

– you can tell because it's got brackets....

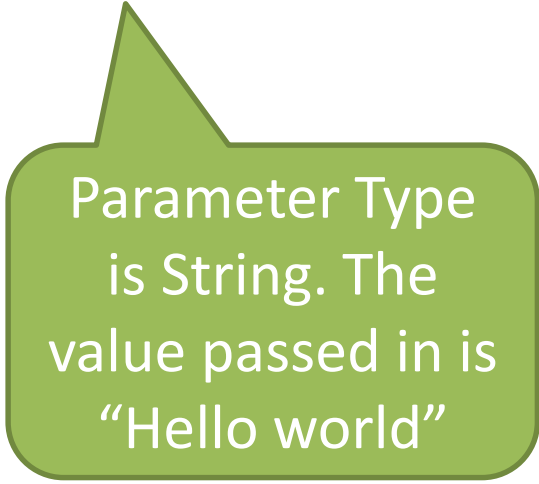
```
System.out.println("Hello world");
```



Return type is void, it doesn't return anything



Method name



Parameter Type is String. The value passed in is "Hello world"

```
System.out.println("Hello world");
```

Return type is void, it doesn't return anything

Method name

Parameter Type is String. The value passed in is "Hello world"

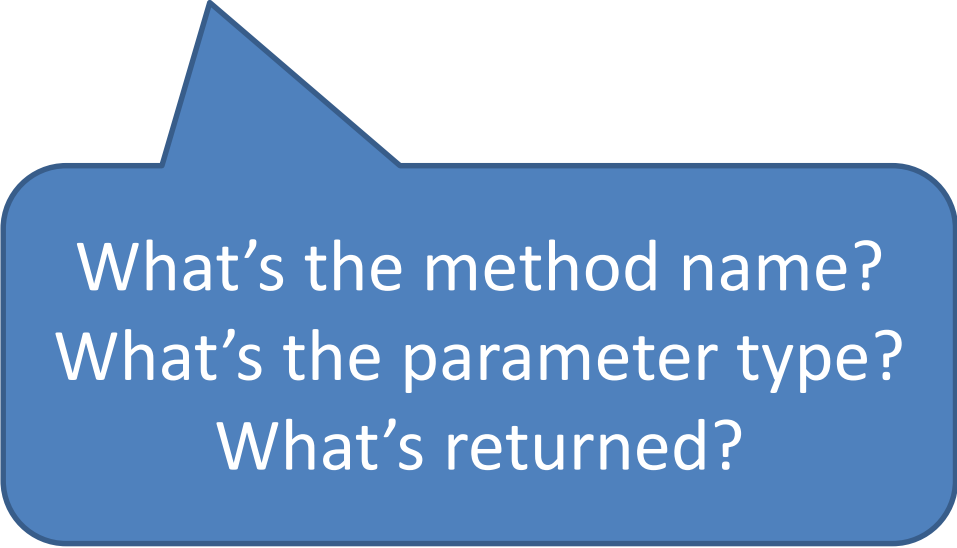
So in the System.out class, we have:

```
public void println (String msg)  
{  
    magic code that actually  
    puts msg on the screen.  
}
```

This is a method call

– you can tell because it's got brackets....

```
double ans = Math.pow(4, 3);
```

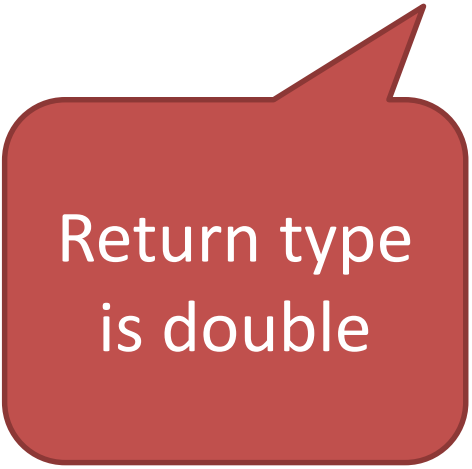


What's the method name?
What's the parameter type?
What's returned?

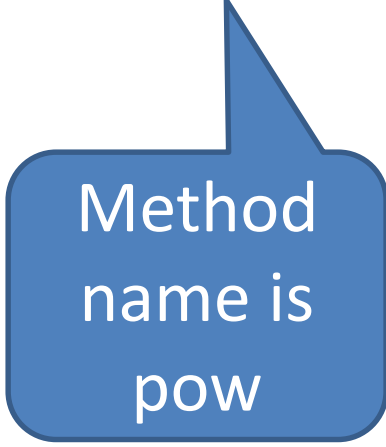
This is a method call

– you can tell because it's got brackets....

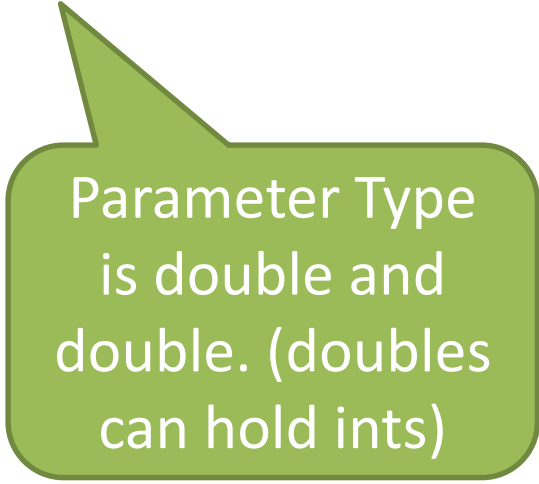
```
double ans = Math.pow(4, 3);
```



Return type
is double

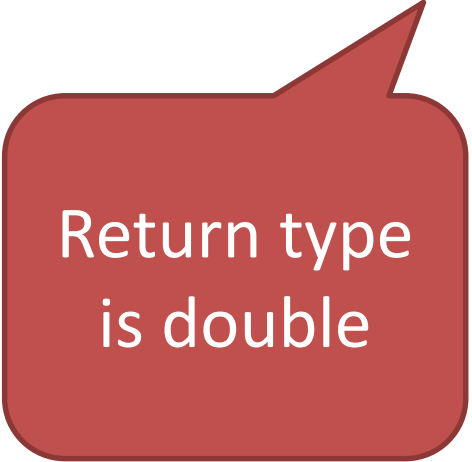


Method
name is
pow

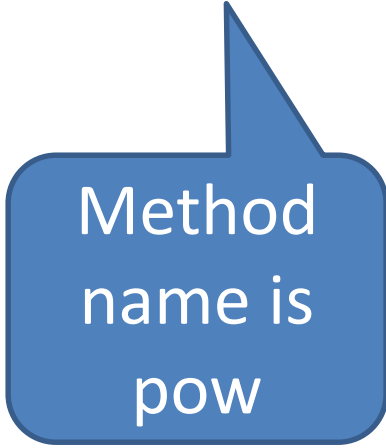


Parameter Type
is double and
double. (doubles
can hold ints)

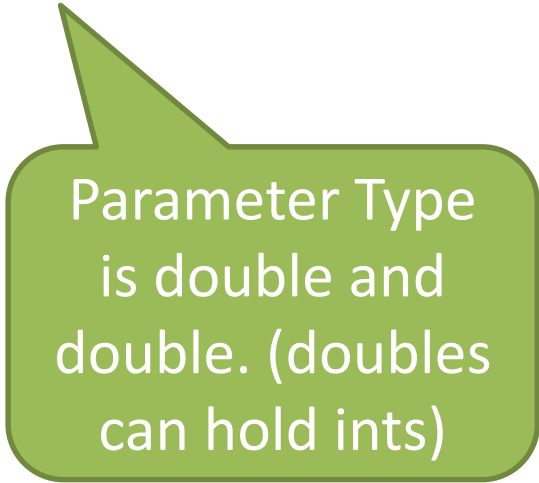
```
double ans = Math.pow(4, 3);
```



Return type
is double



Method
name is
pow



Parameter Type
is double and
double. (doubles
can hold ints)

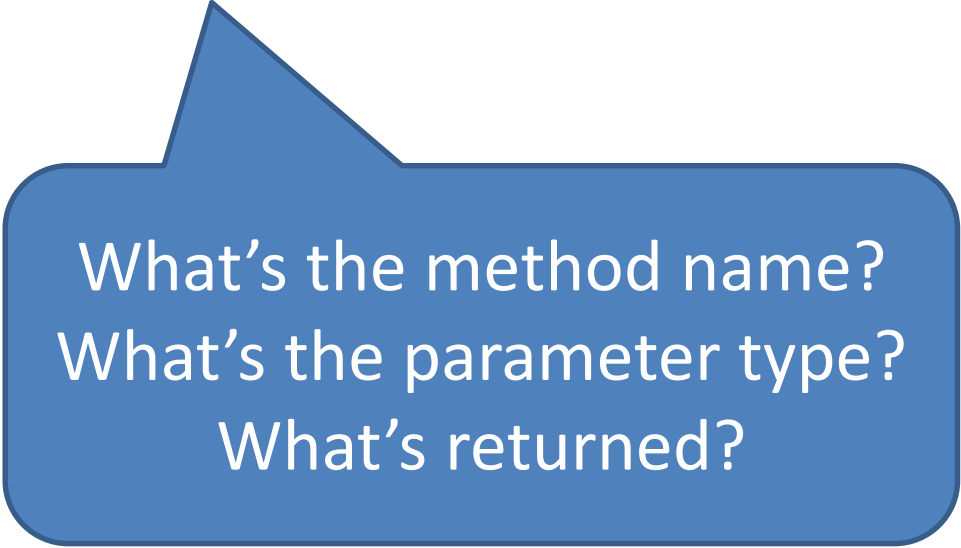
So in the Math class, we have:

```
public double pow (double base, double power)  
{  
    magic code that actually calculates  
    the answer and returns a double.  
}
```

This is a method call

– you can tell because it's got brackets....

```
int num = IBIO.inputInt ("Number? ");
```

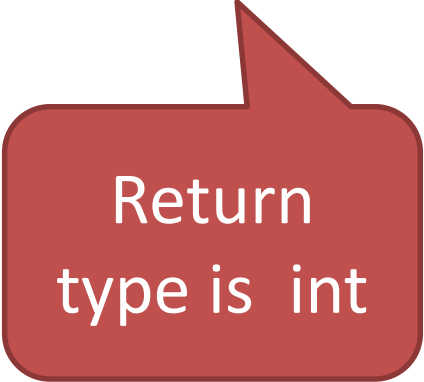


What's the method name?
What's the parameter type?
What's returned?

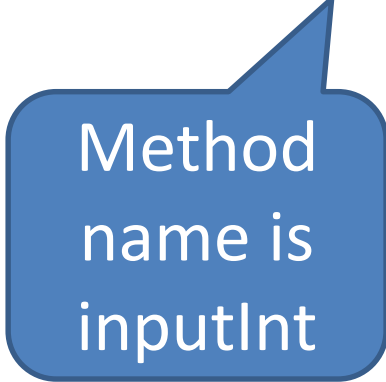
This is a method call

– you can tell because it's got brackets....

```
int num = IBIO.inputInt("Number? ");
```



Return
type is int

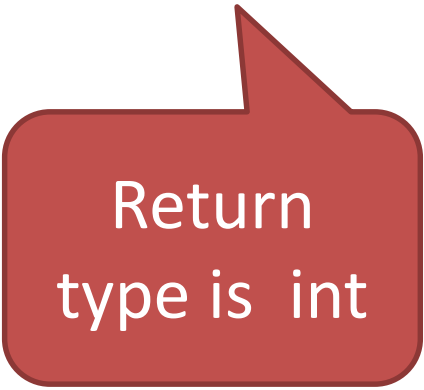


Method
name is
inputInt

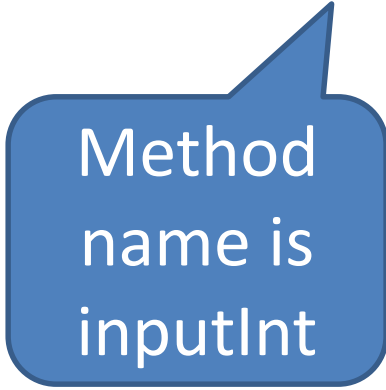


Parameter
Type is String

```
int num = IBIO.inputInt("Number? ");
```

A red callout box with a white border and a pointer pointing towards the 'int' in the code above.

Return
type is int

A blue callout box with a white border and a pointer pointing towards the 'inputInt' in the code above.

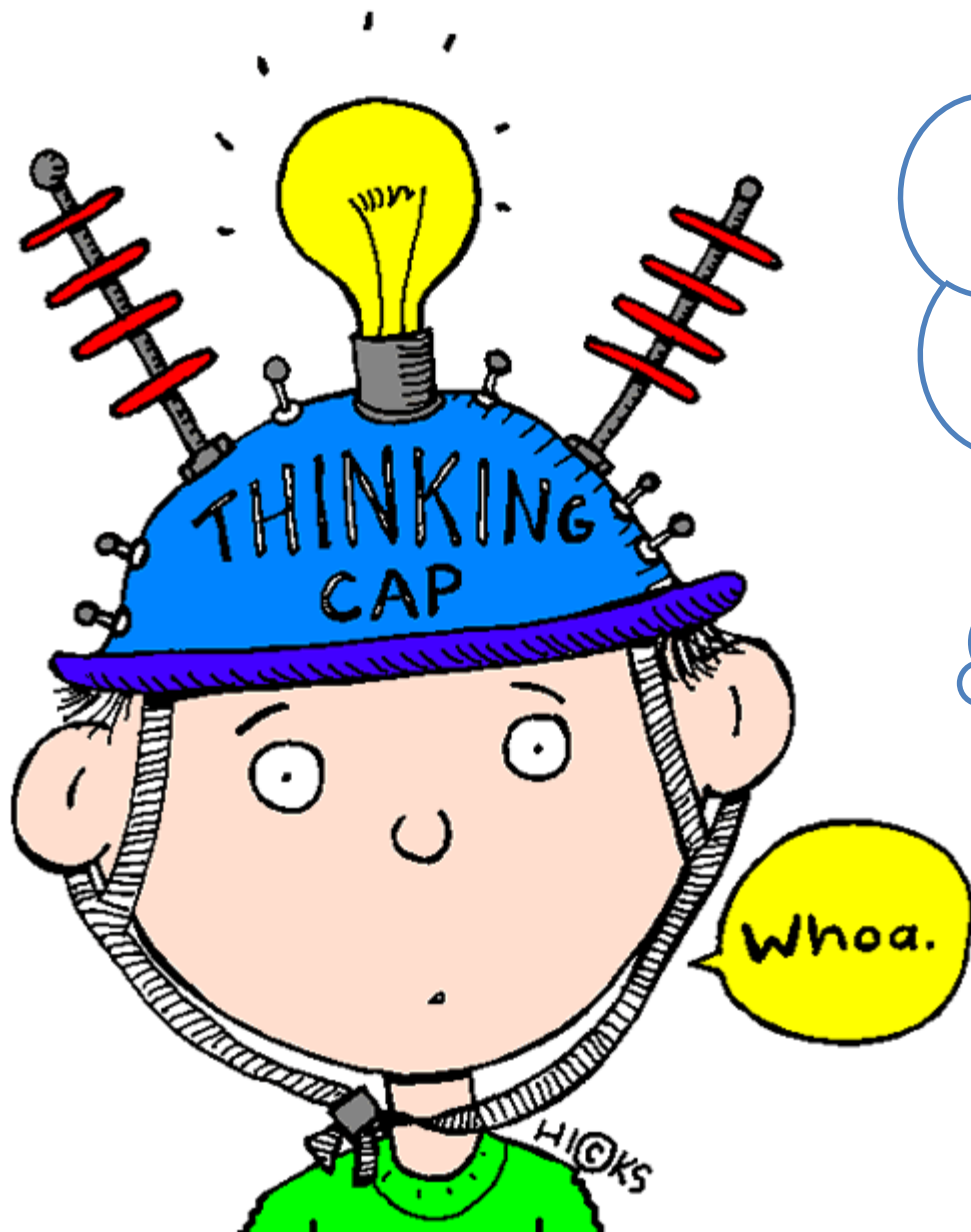
Method
name is
inputInt

A green callout box with a white border and a pointer pointing towards the '"Number? "' in the code above.

Parameter
Type is String

So in the IBIO class, we have:

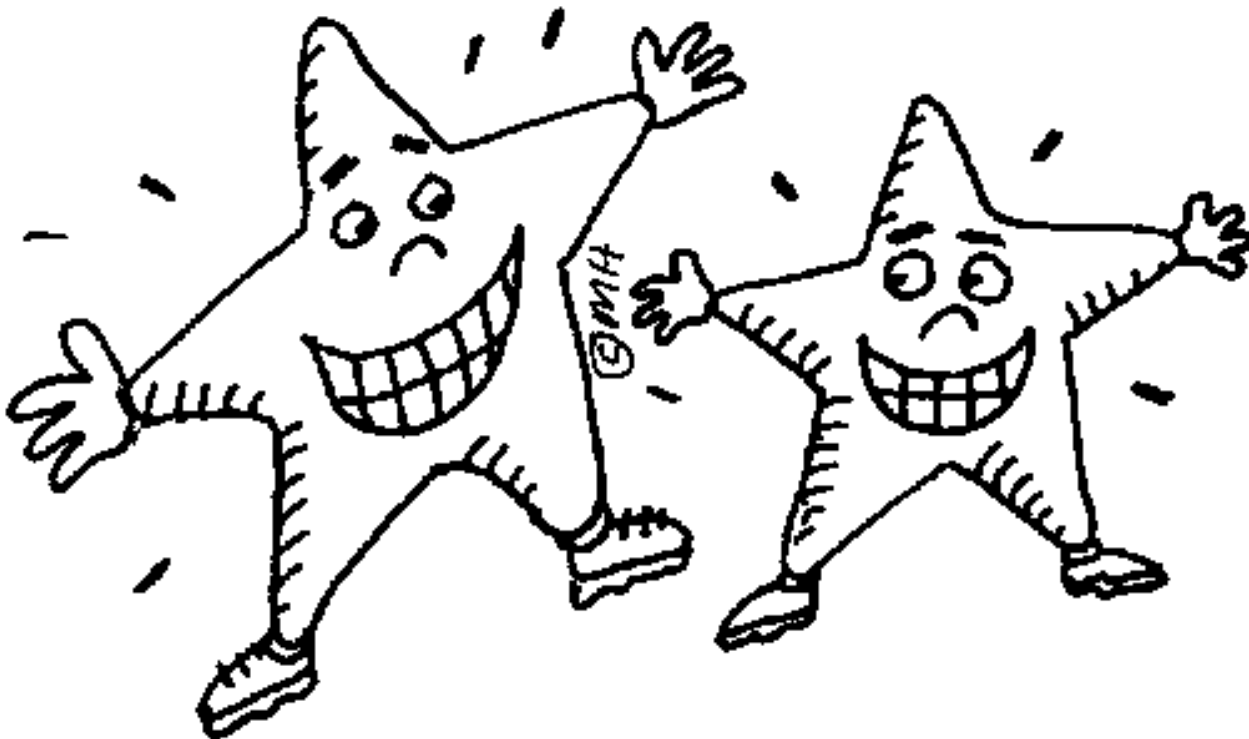
```
public int inputInt (String msg)  
{  
    magic code that actually prints msg, gets  
    the user input and passes back an int.  
}
```



It seems that
you've been
using methods
since day 1.

Once upon a time (this was about 1 month ago), when you were a brand new programmer, you didn't know very much about coding.

Methods allowed you to skip over the complicated stuff. An advanced programmer would write a method and YOU would just call it.



useful

So here is one **important** reason methods are useful: You can use them with out understanding them.

Methods allow you to build on other people's knowledge.

