**Number rounding in JavaScript**

So trivial a task to us humans, almost so to JavaScript as well. Round up your brain cells as we explore number rounding in the language!

**http://www.javascriptkit.com/jkincludes/arrow2.gif Basic idea**

JavaScript helps lay the foundation for rounding off numbers with the following method:

Math.round(x)

Using it, any supplied argument is rounded off to the **nearest integer**, and using the ".5" up rule. For example:

|  |  |
| --- | --- |
| 1  2  3 | Math.round(25.9) //returns 26  Math.round(25.2) //returns 25  Math.round(-2.58) //returns -3 |

If purging numbers of decimals is all that you require, class dismissed!

**http://www.javascriptkit.com/jkincludes/arrow2.gif Taking things a few decimals further**

Want to display $25 in standard currency format? How about PI to finity and not beyond? Formatting numbers to specific decimal points entails still Math.round(), but padded with a little multiplication and division. See if you can identify the magic formula involved, with the below examples:

|  |  |  |
| --- | --- | --- |
| 1 | var original=28.453 | |
| 1  2 | 1) //round "original" to two decimals  var result=Math.round(original\*100)/100  //returns 28.45 |

|  |  |  |
| --- | --- | --- |
| 1  2 | 2) // round "original" to 1 decimal  var result=Math.round(original\*10)/10  //returns 28.5 | |
| 1  2 | 3) //round 8.111111 to 3 decimals  var result=Math.round(8.111111\*1000)/1000  //returns 8.111 |

In case you haven't picked up on it, the formula to round any number to **x** decimal points is:

1) Multiple the original number by 10^x (10 to the power of x)  
2) Apply Math.round() to the result  
3) Divide result by 10^x

Ahh, pre Algebra class all over again...

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