Código: Arredondar inteiros

```
#include <math.h>
int arredondado_pra_baixo = floor(NUMERO);
int arredondado_pra_cima = ceil(NUMERO);
```

floor function

```
     double floor (      double x );
      float floor (       float x );                    <cmath>
long double floor ( long double x );
```

Round down value

Returns the largest integral value that is not greater than *x*.

Parameters

x
Floating point value.

Return Value

The largest integral value not greater than *x*.

Portability

In C, only the `double` version of this function exists with this name.

Example

```
/* floor example */
#include <stdio.h>
#include <math.h>

int main ()
{
  printf ("floor of 2.3 is %.1lf\n", floor (2.3) );
  printf ("floor of 3.8 is %.1lf\n", floor (3.8) );
  printf ("floor of -2.3 is %.1lf\n", floor (-2.3) );
  printf ("floor of -3.8 is %.1lf\n", floor (-3.8) );
  return 0;
}
```

Output:

```
floor of 2.3 is 2.0
floor of 3.8 is 3.0
floor of -2.3 is -3.0
floor of -3.8 is -4.0
```

See also

ceil	Round up value (function)
fabs	Compute absolute value (function)
modf	Break into fractional and integral parts (function)

ceil function

```
     double ceil (      double x );
      float ceil (       float x );                                  <cmath>
long double ceil ( long double x );
```

Round up value

Returns the smallest integral value that is not less than *x*.

Parameters

x
Floating point value.

Return Value

The smallest integral value not less than *x*.

Portability

In C, only the `double` version of this function exists with this name.

Example

```
/* ceil example */
#include <stdio.h>
#include <math.h>

int main ()
{
  printf ("ceil of 2.3 is %.1lf\n", ceil (2.3) );
  printf ("ceil of 3.8 is %.1lf\n", ceil (3.8) );
  printf ("ceil of -2.3 is %.1lf\n", ceil (-2.3) );
  printf ("ceil of -3.8 is %.1lf\n", ceil (-3.8) );
  return 0;
}
```

Output:

```
ceil of 2.3 is 3.0
ceil of 3.8 is 4.0
ceil of -2.3 is -2.0
ceil of -3.8 is -3.0
```

See also

floor	Round down value (function)
fabs	Compute absolute value (function)
modf	Break into fractional and integral parts (function)

Fonte:
http://www.cplusplus.com/reference/clibrary/cmath/ceil.html
http://www.cplusplus.com/reference/clibrary/cmath/floor.html
http://www.dicasbcb.com/forum/viewtopic.php?t=3593&sid=66831fbe388b2a68178a4f0961d81582