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## numpy.multiply

`numpy.multiply(x1, x2[, out]) = <ufunc 'multiply'>`

Multiply arguments element-wise.

Parameters: `x1, x2 : array_like`

Input arrays to be multiplied.

Returns: `y : ndarray`

The product of `x1` and `x2`, element-wise.

Returns a scalar if both `x1` and `x2` are scalars.

Previous topic

[numpy.negative](http://docs.scipy.org/doc/numpy/reference/generated/numpy.negative.html)  
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Next topic

[numpy.divide](http://docs.scipy.org/doc/numpy/reference/generated/numpy.divide.html)  
([numpy.divide.html](http://docs.scipy.org/doc/numpy/reference/generated/numpy.divide.html))

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矩阵乘法

### Notes

Equivalent to `x1 * x2` in terms of array broadcasting.

### Examples

```
>>> np.multiply(2.0, 4.0)
8.0
```

```
>>> x1 = np.arange(9.0).reshape((3, 3))
>>> x2 = np.arange(3.0)
>>> np.multiply(x1, x2)
array([[ 0.,  1.,  4.],
       [ 0.,  4., 10.],
       [ 0.,  7., 16.]])
```

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```
>>> x1 = np.arange(9.0)
>>> x1
array([ 0.,  1.,  2.,  3.,  4.,  5.,  6.,  7.,  8.])
>>> x1.reshape((3,3))
array([[ 0.,  1.,  2.],
       [ 3.,  4.,  5.],
       [ 6.,  7.,  8.]])
>>> x2=np.arange(3.0)
>>> x2
array([ 0.,  1.,  2.])
```