

# tensor.xor

## tensor.xor

...

```
Copy fnxor(self:@Tensor, other:@Tensor)->Tensor;
```

...

Computes the logical XOR of two tensors element-wise. The input tensors must have either:

- Exactly the same shape
- The same number of dimensions and the length of each dimension is either a common length or 1.
- 

### Args

- self
- (@Tensor
- ) - The first tensor to be compared
- other
- (@Tensor
- ) - The second tensor to be compared
- 

### Panics

- Panics if the shapes are not equal or broadcastable
- 

### Returns

A newTensor of booleans (0 or 1) with the same shape as the broadcasted inputs.

### Examples

Case 1: Compare tensors with same shape

...

```
Copy usecore::array::{ArrayTrait,SpanTrait};
```

```
useorion::operators::tensor::{TensorTrait,Tensor,U32Tensor};
```

```
fnxor_example()->Tensor { lettensor_1=TensorTrait::new( shape:array![3,3].span(), data:array![0,1,2,3,4,5,6,7,8].span(), );
```

```
lettensor_2=TensorTrait::new( shape:array![3,3].span(), data:array![0,1,2,3,4,5,9,1,5].span(), );
```

```
returntensor_1.xor(@tensor_2); }
```

```
[0,0,0,0,0,0,0,0,0]
```

...

Case 2: Compare tensors with different shapes

...

```
Copy usecore::array::{ArrayTrait,SpanTrait};
```

```
useorion::operators::tensor::{TensorTrait,Tensor,U32Tensor};
```

```
fnxor_example()->Tensor { lettensor_1=TensorTrait::new( shape:array![3,3].span(), data:array![0,1,2,3,4,5,6,7,8].span(), );
```

```
lettensor_2=TensorTrait::new( shape:array![1,3].span(), data:array![0,1,2].span(), );
```

```
returntensor_1.xor(@tensor_2); }
```

```
[0,0,0,1,0,0,1,0,0]
```

...

[Previous tensor](#).or [Next tensor](#).onehot

Last updated 3 months ago