

# tensor.sinh

...

```
Copy fnsinh(self:@Tensor)->Tensor;
```

...

Computes the hyperbolic sine of all elements of the input tensor.

$y_i = \sinh(x_i)$   $y_i = \sinh(x_i)$

## Args

- self
- (@Tensor
- ) - The input tensor.
- 

## Returns

Returns a new tensor inT with the hyperbolic sine of the elements of the input tensor.

## Type Constraints

Constrain input and output types to fixed point tensors.

## Examples

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

```
useorion::operators::tensor::{TensorTrait,Tensor,FP8x23Tensor}; useorion::numbers::{FixedTrait,FP8x23};
```

```
fnsinh_example()->Tensor { lettensor=TensorTrait::new( shape:array![2,2].span(), data:array![  
FixedTrait::new_unscaled(0,false), FixedTrait::new_unscaled(1,false), FixedTrait::new_unscaled(2,false),  
FixedTrait::new_unscaled(3,false) ] .span(), );
```

```
returntensor.sinh(); }
```

```
[[0,9858303],[30424311,84036026]] // The fixed point representation of // [[0, 1.175201],  
[3.62686, 10.0178749]]
```

...

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Last updated 3 months ago