

# tensor.asinh

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

...

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

$y_i = \operatorname{asinh}(x_i)$

## Args

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

## Returns

Returns a new tensor in T 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};
```

```
fnasinh_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.asinh(); }
```

```
[[0,7393498],[12110093,15254235]] // The fixed point representation of // [[0, 0.8814],  
[1.44364, 1.8185]]
```

...

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Last updated 3 months ago