

# tensor.sqrt

## tensor.sqrt

...

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

...

Computes the square root of all elements of the input tensor.

### Args

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

### Returns

A newTensor of the same shape as the input tensor with the arctangent (inverse of tangent) value of all elements in the input tensor.

### Type Constraints

Constrain input and output types to fixed point tensors.

### Example

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

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

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

```
returntensor.sqrt(); }
```

```
[0,8388608,11863169] // The fixed point representation of // [0,1,1.4142...]
```

...

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Last updated3 months ago