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API Collection

# Fractional part extraction

Truncate the elements of a vector to a fraction.

## Topics

### Single-Vector Fractional Part Extraction

The functions in this group remove the whole-number part of each element in a vector, leaving the fractional part in the output vector.

```
static func trunc<U>(U) -> [Double]
```

Returns a double-precision array containing each element in the supplied vector truncated to a fraction.

```
static func trunc<U>(U) -> [Float]
```

Returns a single-precision array containing each element in the supplied vector truncated to a fraction.

```
static func trunc<U, V>(U, result: inout V)
```

Calculates each element in the supplied double-precision vector truncated to a fraction.

```
static func trunc<U, V>(U, result: inout V)
```

Calculates each element in the supplied single-precision vector truncated to a fraction.

vDSP\_vfrac

Truncates the elements of a single-precision vector to fractions.

vDSP\_vfracD

Truncates the elements of a double-precision vector to fractions.

## See Also

### Single-vector arithmetic functions

#### ≡ Absolute and negation functions

Compute the absolute or negated value of each element in a vector.

#### ≡ Integration functions

Compute the running sum, Simpson, or trapezoidal integration of a vector.

#### ≡ Clipping, limit, and threshold operations

Apply clipping, limit, or threshold rules to the elements in a vector.

#### ≡ Normalization functions

Compute the mean and standard deviation of a vector and calculate new elements to have a zero mean and a unit standard deviation.

#### ≡ Phase computation functions

Calculate the element-wise phase values, in radians, of a complex vector.

#### ≡ Complex conjugation functions

Calculate the complex conjugate of the elements in a vector.

#### ≡ Vector squaring functions

Compute the square, signed square, or squared magnitude of the elements in a vector.

#### ≡ Zero crossing search

Count and find the zero crossings in a vector.