

[Accelerate](#) / [vDSP](#) / `sum(_:)`

Type Method

sum(_:)

Returns the single-precision vector sum.

iOS 13.0+ | iPadOS 13.0+ | Mac Catalyst | macOS 10.15+ | tvOS 13.0+ | visionOS | watchOS 6.0+

```
static func sum<U>(_ vector: U) -> Float where U : Accelerate
Buffer, U.Element == Float
```

Parameters

vector

The vector to sum.

Discussion

This function calculates and returns the sum of the elements of a supplied vector.

The following is an example of using `sum(_:)`:

```
let a: [Float] = [-1.5, 2.25, 3.6,
                  0.2, -0.1, -4.3]

let sum = vDSP.sum(a)

// Prints "sum 0.1500"
print(String(format: "sum %.4f", sum))
```

See Also

Type Methods

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

Returns the absolute value of each element in the supplied double-precision vector.

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

Returns the absolute value of each element in the supplied single-precision vector.

```
static func absolute<V>(DSPSplitComplex, result: inout V)
```

Calculates the absolute value of each element in the supplied single-precision complex vector.

```
static func absolute<V>(DSPDoubleSplitComplex, result: inout V)
```

Calculates the absolute value of each element in the supplied double-precision complex vector.

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

Calculates the absolute value of each element in the supplied double-precision vector.

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

Calculates the absolute value of each element in the supplied single-precision vector.

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

Returns the double-precision element-wise sum of a vector and a scalar value.

```
static func add<T, U>(T, U) -> [Double]
```

Returns the double-precision element-wise sum of two vectors.

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

Returns the single-precision element-wise sum of a vector and a scalar value.

```
static func add<T, U>(T, U) -> [Float]
```

Returns the single-precision element-wise sum of two vectors.

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

Calculates the single-precision element-wise sum of a vector and a scalar value.

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

Calculates the single-precision element-wise sum of a vector and a scalar value.

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

Calculates the double-precision element-wise sum of two vectors.

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

Calculates the single-precision element-wise sum of two vectors.

```
static func add(DSPSplitComplex, to: DSPSplitComplex, count: Int,  
result: inout DSPSplitComplex)
```

Calculates the single-precision elementwise sum of the supplied complex vectors.