

Module std::u128

Returns the bitwise not of the value. Each bit that is 1 becomes 0. Each bit that is 0 becomes 1.

Return the larger of x and y

Return the smaller of x and y

Return the absolute value of x - y

Calculate x / y, but round up the result.

Return the value of a base raised to a power

Get a nearest lower integer Square Root for x. Given that this function can only operate with integers, it is impossible to get perfect (or precise) integer square root for some numbers.

Example:

In integer math, one of the possible ways to get results with more precision is to use higher values or temporarily multiply the value by some bigger number. Ideally if this is a square of 10 or 100.

Example:

Try to convert a [u128](#) to a [u8](#) . Returns None if the value is too large.

Try to convert a [u128](#) to a [u16](#) . Returns None if the value is too large.

Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

Maximum value for a [u128](#)

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

Function

Returns the bitwise not of the value. Each bit that is 1 becomes 0. Each bit that is 0 becomes 1.

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Return the larger of x and y

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Return the smaller of x and y

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Return the absolute value of $x - y$

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```

Calculate x / y , but round up the result.

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Return the value of a base raised to a power

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Get a nearest lower integer Square Root for x . Given that this function can only operate with integers, it is impossible to get perfect (or precise) integer square root for some numbers.

Example:

In integer math, one of the possible ways to get results with more precision is to use higher values or temporarily multiply the value by some bigger number. Ideally if this is a square of 10 or 100.

Example:

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'''bash
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```

Try to convert a [ul28](#) to a [u8](#) . Returns None if the value is too large.

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```

Try to convert a [ul28](#) to a [ul6](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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```

Loops applying `ft oe a c h n u m b e r f r o m f t` to each number from `ft oe a c h n u m b e r f r o m s t a r t` to `$stop` (exclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m f t` to each number from `ft oe a c h n u m b e r f r o m s t a r t` to `$stop` (inclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m 0 t o f t` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o s t o p` (exclusive)

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```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o s t o p (inclusive)

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Function

Return the larger of x and y

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Return the smaller of x and y

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Return the absolute value of x - y

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Calculate x / y , but round up the result.

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Return the value of a base raised to a power

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Try to convert a [ul28](#) to a [u8](#) . Returns None if the value is too large.

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Try to convert a [ul28](#) to a [ul6](#) . Returns None if the value is too large.

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```

Try to convert a [ul28](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [ul28](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [ul28](#)

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Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

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Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

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Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

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Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

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Function

Return the smaller of x and y

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Return the absolute value of x - y

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Calculate  $x / y$ , but round up the result.

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Return the value of a base raised to a power

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```

Get a nearest lower integer Square Root for  $x$ . Given that this function can only operate with integers, it is impossible to get perfect (or precise) integer square root for some numbers.

Example:

In integer math, one of the possible ways to get results with more precision is to use higher values or temporarily multiply the value by some bigger number. Ideally if this is a square of 10 or 100.

Example:

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```

Try to convert a [u128](#) to a [u8](#) . Returns None if the value is too large.

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```

Try to convert a [u128](#) to a [u16](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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```

Try to convert a [ul28](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [ul28](#)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

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Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

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Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

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## Function

Return the absolute value of  $x - y$

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```

Calculate  $x / y$ , but round up the result.

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```

Return the value of a base raised to a power

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'''
```

Get a nearest lower integer Square Root for  $x$ . Given that this function can only operate with integers, it is impossible to get perfect (or precise) integer square root for some numbers.

Example:

In integer math, one of the possible ways to get results with more precision is to use higher values or temporarily multiply the value by some bigger number. Ideally if this is a square of 10 or 100.

Example:

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```

Try to convert a [u128](#) to a [u8](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u16](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

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Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)



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Try to convert a [u128](#) to a [u16](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

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Loops applying ft o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o s t o p (exclusive)

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Loops applying ft o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o s t o p (inclusive)

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```

## Function

Return the value of a base raised to a power

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'''
```

Get a nearest lower integer Square Root for x. Given that this function can only operate with integers, it is impossible to get perfect (or precise) integer square root for some numbers.

Example:

In integer math, one of the possible ways to get results with more precision is to use higher values or temporarily multiply the value by some bigger number. Ideally if this is a square of 10 or 100.

Example:

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'''bash
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```

Try to convert a [u128](#) to a [u8](#) . Returns None if the value is too large.

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```

Try to convert a [u128](#) to a [u16](#) . Returns None if the value is too large.

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```

Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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```

Loops applying `ft oe a c h n u m b e r f r o m f` to each number from `ft oe a c h n u m b e r f r o m start` to `$stop` (exclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m f` to each number from `ft oe a c h n u m b e r f r o m start` to `$stop` (inclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m 0 t o f` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o stop` (exclusive)

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Loops applying ft o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o s t o p (inclusive)

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Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

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Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

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Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

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Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

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Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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```

Loops applying `ft oe a c h n u m b e r f r o m f t` to each number from `ft oe a c h n u m b e r f r o m` start to `$stop` (exclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m f t` to each number from `ft oe a c h n u m b e r f r o m` start to `$stop` (inclusive)

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```

Loops applying `ft oe a c h n u m b e r f r o m 0 t o f t` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o` stop (exclusive)

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Loops applying `ft oe a c h n u m b e r f r o m 0 t o f t` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o` stop (inclusive)

```
'''bash
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```

Function

Try to convert a [ul28](#) to a [ul6](#) . Returns None if the value is too large.

```
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Try to convert a [ul28](#) to a [u32](#) . Returns None if the value is too large.

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Maximum value for a [u128](#)

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```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Function

Try to convert a [u128](#) to a [u32](#) . Returns None if the value is too large.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Maximum value for a [u128](#)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Function

Try to convert a [u128](#) to a [u64](#) . Returns None if the value is too large.

```
```bash
```

```
```
```

```
```bash
```

```
```
```

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Maximum value for a [u128](#)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying ft oe a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Function

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Maximum value for a [u128](#)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying `ft oe a c h n u m b e r f r o m f` to each number from `ft oe a c h n u m b e r f r o m` start to `$stop` (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying `ft oe a c h n u m b e r f r o m f` to each number from `ft oe a c h n u m b e r f r o m` start to `$stop` (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying `ft oe a c h n u m b e r f r o m 0 t o f` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o` stop (exclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Loops applying `ft oe a c h n u m b e r f r o m 0 t o f` to each number from `0` to `ft oe a c h n u m b e r f r o m 0 t o` stop (inclusive)

```
```bash
```

```
```
```

```
```bash
```

```
```
```

Macro function

Maximum value for a [u128](#)

```
```bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

## Macro function

Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (exclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
'''bash
```

```
'''
```

```
'''bash
```

```
'''
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

## Macro function

Loops applying ft o e a c h n u m b e r f r o m f to each number from ft oe a c h n u m b e r f r o m start to \$stop (inclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

## Macro function

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (exclusive)

```
```bash
```

```
...
```

```
```bash
```

```
...
```

Loops applying ft o e a c h n u m b e r f r o m 0 t o f to each number from 0 to ft oe a c h n u m b e r f r o m 0 t o stop (inclusive)



```
```bash
```

...

```
```bash
```

...

## Macro function

Loops applying ft o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o f t o e a c h n u m b e r f r o m 0 t o s t o p (i n c l u s i v e)

```
```bash
```

...

```
```bash
```

...