

# Literal expressions

A literal expression is an expression consisting of a single token, rather than a sequence of tokens, that immediately and directly denotes the value it evaluates to, rather than referring to it by name or some other evaluation rule. The supported literal expressions are described next.

## Boolean literals

The two values of the [boolean](#) type are `true` and `false`. example `let a = true; let b = false;`

## Numeric literals

Cairo supports the following numeric literals: 1. A decimal literal that consists of only decimal digits. 2. A hexadecimal literal that start with the character sequence `0x` and continues with hex digits. 3. A binary literal that start with the character sequence `0b` and continues with binary digits. A numeric literal may be followed (immediately, without any spaces) by an underscore character (`_`) and then a literal suffix, which forcibly sets the type of the literal. The literal suffix is any valid identifier, but only selected values are semantically correct. Floating-point numbers are not supported. Examples of numeric literals of various forms: Literal Value Type `1234` `1234` `felt252` `1234_felt252` `1234_felt252` `1234_u32` `1234_i32` ``1234_u128` `1234_u128` `0x4D2` `1234_felt252` `0b10011010010` `1234_felt252` Examples of invalid numeric literals: \* Invalid suffix: \* `1234suffix` \* Use of digits of wrong base: \* `123AFB43` \* `,0b0102` \* `,0o0581` \* `,0xG` \* . \* Binary and hexadecimal literals must have at least one digit: \* `0b` \* `,0x_u128` Cairo syntax considers `-1` as an application of the [unary minus operator](#) to the numeric literal `1`, rather than a single numeric literal.

## Short string literals

A short string is a `ascii-string` whose length is limited by the type that holds it. The default type is `felt252` which limits the length of the string to 31 characters. A short string literal may be followed by an underscore character (`_`) and then a literal suffix just like a numerical literal. Examples of short string literals: \* `'short_string'` \* `'short_string'_u128` \* `'a'_u8` Note that a short-string is a way to encode a string as a numerical value, it is not a string type. Cairo doesn't have a string type at the moment. The short string's first character is the most significant byte of the integer (big endian representation).

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