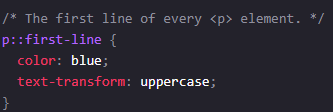
1. **Pseudo-element**: A CSS pseudo-element is a keyword added to a selector that lets you style a specific part of the selected element(s). For example, ::first-line can be used to change the font of the first line of a paragraph.



Note: In contrast to pseudo-elements, pseudo-classes can be used to style an element based on its state.

1. **Syntax**

Selector:: pseudo-element {

Property: value;

}

You can use only one pseudo-element in a selector. It must appear after the simple selectors in the statement.

Note: As a rule, double colons (::) should be used instead of a single colon (:). This distinguishes pseudo-classes from pseudo-elements. However, since this distinction was not present in older versions of the W3C spec, most browsers support both syntaxes for the original pseudo-elements.

[Index](https://developer.mozilla.org/en-US/docs/Web/CSS/Pseudo-elements#index)

Pseudo-elements defined by a set of CSS specifications include the following:

[::after(:after)](https://developer.mozilla.org/en-US/docs/Web/CSS/::after)  
In CSS, ::after creates a pseudo-element that is the last child of the selected element. It is often used to add cosmetic content to an element with the content property. It is inline by default

[::backdrop](https://developer.mozilla.org/en-US/docs/Web/CSS/::backdrop)

[::before (:before)](https://developer.mozilla.org/en-US/docs/Web/CSS/::before): In CSS, ::before creates a pseudo-element that is the first child of the selected element. It is often used to add cosmetic content to an element with the content property. It is inline by default.

[::cue](https://developer.mozilla.org/en-US/docs/Web/CSS/::cue)

[::cue-region](https://developer.mozilla.org/en-US/docs/Web/CSS/::cue-region)

[::first-letter (:first-letter)](https://developer.mozilla.org/en-US/docs/Web/CSS/::first-letter)

[::first-line (:first-line)](https://developer.mozilla.org/en-US/docs/Web/CSS/::first-line)

[::file-selector-button](https://developer.mozilla.org/en-US/docs/Web/CSS/::file-selector-button)

[::grammar-error](https://developer.mozilla.org/en-US/docs/Web/CSS/::grammar-error)

[::marker](https://developer.mozilla.org/en-US/docs/Web/CSS/::marker)

[::part()](https://developer.mozilla.org/en-US/docs/Web/CSS/::part)

[::placeholder](https://developer.mozilla.org/en-US/docs/Web/CSS/::placeholder)

[::selection](https://developer.mozilla.org/en-US/docs/Web/CSS/::selection)::slotted()

[::spelling-error](https://developer.mozilla.org/en-US/docs/Web/CSS/::spelling-error)

[::target-text](https://developer.mozilla.org/en-US/docs/Web/CSS/::target-text)

**Calc: calc()**

The calc() CSS function lets you perform calculations when specifying CSS property values. It can be used anywhere a <length>, <frequency>, <angle>, <time>, <percentage>, <number>, or <integer> is allowed.

/\* property: calc(expression) \*/

width: calc(100% - 80px);

NOTE: The calc() function takes a single expression as its parameter, with the expression's result used as the value. The expression can be any simple expression combining the following operators, using standard operator precedence rules:

1. **Selectors In CSS   
   z**

|  |  |  |
| --- | --- | --- |
| **Selector** | **Example** | **Example description** |
| [.*class*](https://www.w3schools.com/cssref/sel_class.asp) | .introyy | Selects all elements with class="intro" |
| *.class1.class2* | .name1.name2 | Selects all elements with both *name1* and *name2* set within its class attribute |
| *.class1 .class2* | .name1 .name2 | Selects all elements with *name2* that is a descendant of an element with *name1* |
| [#*id*](https://www.w3schools.com/cssref/sel_id.asp) | #firstname | Selects the element with id="firstname" |
| [\*](https://www.w3schools.com/cssref/sel_all.asp) | \* | Selects all elements |
| [*element*](https://www.w3schools.com/cssref/sel_element.asp) | p | Selects all <p> elements |
| [*element.class*](https://www.w3schools.com/cssref/sel_element_class.asp) | p.intro | Selects all <p> elements with class="intro" |
| [*element,element*](https://www.w3schools.com/cssref/sel_element_comma.asp) | div, p | Selects all <div> elements and all <p> elements |
| [*element* *element*](https://www.w3schools.com/cssref/sel_element_element.asp) | div p | Selects all <p> elements inside <div> elements |
| [*element*>*element*](https://www.w3schools.com/cssref/sel_element_gt.asp) | div > p | Selects all <p> elements where the parent is a <div> element |
| [*element*+*element*](https://www.w3schools.com/cssref/sel_element_pluss.asp) | div + p | Selects the first <p> element that is placed immediately after <div> elements |
| [*element1*~*element2*](https://www.w3schools.com/cssref/sel_gen_sibling.asp) | p ~ ul | Selects every <ul> element that is preceded by a <p> element |
| [[*attribute*]](https://www.w3schools.com/cssref/sel_attribute.asp) | [target] | Selects all elements with a target attribute |
| [[*attribute*=*value*]](https://www.w3schools.com/cssref/sel_attribute_value.asp) | [target=\_blank] | Selects all elements with target="\_blank" |
| [[*attribute*~=*value*]](https://www.w3schools.com/cssref/sel_attribute_value_contains.asp) | [title~=flower] | Selects all elements with a title attribute containing the word "flower" |
| [[*attribute*|=*value*]](https://www.w3schools.com/cssref/sel_attribute_value_lang.asp) | [lang|=en] | Selects all elements with a lang attribute value equal to "en" or starting with "en-" |
| [[*attribute*^=*value*]](https://www.w3schools.com/cssref/sel_attr_begin.asp) | a[href^="https"] | Selects every <a> element whose href attribute value begins with "https" |
| [[*attribute*$=*value*]](https://www.w3schools.com/cssref/sel_attr_end.asp) | a[href$=".pdf"] | Selects every <a> element whose href attribute value ends with ".pdf" |
| [[*attribute*\*=*value*]](https://www.w3schools.com/cssref/sel_attr_contain.asp) | a[href\*="w3schools"] | Selects every <a> element whose href attribute value contains the substring "w3schools" |
| [:active](https://www.w3schools.com/cssref/sel_active.asp) | a:active | Selects the active link |
| [::after](https://www.w3schools.com/cssref/sel_after.asp) | p::after | Insert something after the content of each <p> element |
| [::before](https://www.w3schools.com/cssref/sel_before.asp) | p::before | Insert something before the content of each <p> element |
| [:checked](https://www.w3schools.com/cssref/sel_checked.asp) | input:checked | Selects every checked <input> element |
| [:default](https://www.w3schools.com/cssref/sel_default.asp) | input:default | Selects the default <input> element |
| [:disabled](https://www.w3schools.com/cssref/sel_disabled.asp) | input:disabled | Selects every disabled <input> element |
| [:empty](https://www.w3schools.com/cssref/sel_empty.asp) | p:empty | Selects every <p> element that has no children (including text nodes) |
| [:enabled](https://www.w3schools.com/cssref/sel_enabled.asp) | input:enabled | Selects every enabled <input> element |
| [:first-child](https://www.w3schools.com/cssref/sel_firstchild.asp) | p:first-child | Selects every <p> element that is the first child of its parent |
| [::first-letter](https://www.w3schools.com/cssref/sel_firstletter.asp) | p::first-letter | Selects the first letter of every <p> element |
| [::first-line](https://www.w3schools.com/cssref/sel_firstline.asp) | p::first-line | Selects the first line of every <p> element |
| [:first-of-type](https://www.w3schools.com/cssref/sel_first-of-type.asp) | p:first-of-type | Selects every <p> element that is the first <p> element of its parent |
| [:focus](https://www.w3schools.com/cssref/sel_focus.asp) | input:focus | Selects the input element which has focus |
| [:fullscreen](https://www.w3schools.com/cssref/sel_fullscreen.asp) | :fullscreen | Selects the element that is in full-screen mode |
| [:hover](https://www.w3schools.com/cssref/sel_hover.asp) | a:hover | Selects links on mouse over |
| [:in-range](https://www.w3schools.com/cssref/sel_in-range.asp) | input:in-range | Selects input elements with a value within a specified range |
| [:indeterminate](https://www.w3schools.com/cssref/sel_indeterminate.asp) | input:indeterminate | Selects input elements that are in an indeterminate state |
| [:invalid](https://www.w3schools.com/cssref/sel_invalid.asp) | input:invalid | Selects all input elements with an invalid value |
| [:lang(*language*)](https://www.w3schools.com/cssref/sel_lang.asp) | p:lang(it) | Selects every <p> element with a lang attribute equal to "it" (Italian) |
| [:last-child](https://www.w3schools.com/cssref/sel_last-child.asp) | p:last-child | Selects every <p> element that is the last child of its parent |
| [:last-of-type](https://www.w3schools.com/cssref/sel_last-of-type.asp) | p:last-of-type | Selects every <p> element that is the last <p> element of its parent |
| [:link](https://www.w3schools.com/cssref/sel_link.asp) | a:link | Selects all unvisited links |
| [::marker](https://www.w3schools.com/cssref/sel_marker.asp) | ::marker | Selects the markers of list items |
| [:not(*selector*)](https://www.w3schools.com/cssref/sel_not.asp) | :not(p) | Selects every element that is not a <p> element |
| [:nth-child(*n*)](https://www.w3schools.com/cssref/sel_nth-child.asp) | p:nth-child(2) | Selects every <p> element that is the second child of its parent |
| [:nth-last-child(*n*)](https://www.w3schools.com/cssref/sel_nth-last-child.asp) | p:nth-last-child(2) | Selects every <p> element that is the second child of its parent, counting from the last child |
| [:nth-last-of-type(*n*)](https://www.w3schools.com/cssref/sel_nth-last-of-type.asp) | p:nth-last-of-type(2) | Selects every <p> element that is the second <p> element of its parent, counting from the last child |
| [:nth-of-type(*n*)](https://www.w3schools.com/cssref/sel_nth-of-type.asp) | p:nth-of-type(2) | Selects every <p> element that is the second <p> element of its parent |
| [:only-of-type](https://www.w3schools.com/cssref/sel_only-of-type.asp) | p:only-of-type | Selects every <p> element that is the only <p> element of its parent |
| [:only-child](https://www.w3schools.com/cssref/sel_only-child.asp) | p:only-child | Selects every <p> element that is the only child of its parent |
| [:optional](https://www.w3schools.com/cssref/sel_optional.asp) | input:optional | Selects input elements with no "required" attribute |
| [:out-of-range](https://www.w3schools.com/cssref/sel_out-of-range.asp) | input:out-of-range | Selects input elements with a value outside a specified range |
| [::placeholder](https://www.w3schools.com/cssref/sel_placeholder.asp) | input::placeholder | Selects input elements with the "placeholder" attribute specified |
| [:read-only](https://www.w3schools.com/cssref/sel_read-only.asp) | input:read-only | Selects input elements with the "readonly" attribute specified |
| [:read-write](https://www.w3schools.com/cssref/sel_read-write.asp) | input:read-write | Selects input elements with the "readonly" attribute NOT specified |
| [:required](https://www.w3schools.com/cssref/sel_required.asp) | input:required | Selects input elements with the "required" attribute specified |
| [:root](https://www.w3schools.com/cssref/sel_root.asp) | :root | Selects the document's root element |
| [::selection](https://www.w3schools.com/cssref/sel_selection.asp) | ::selection | Selects the portion of an element that is selected by a user |
| [:target](https://www.w3schools.com/cssref/sel_target.asp) | #news:target | Selects the current active #news element (clicked on a URL containing that anchor name) |
| [:valid](https://www.w3schools.com/cssref/sel_valid.asp) | input:valid | Selects all input elements with a valid value |
| [:visited](https://www.w3schools.com/cssref/sel_visited.asp) | a:visited | Selects all visited links |