

CSS Units

[« Previous \(css_websafe_font-size\)](#)[Next Reference » \(css_pxtoemconversion\)](#)

CSS Units

CSS has several different units for expressing a length.

Many CSS properties take "length" values, such as width, margin, padding, font-size, border-width, etc.

Length is a number followed by a length unit, such as 10px, 2em, etc.

A whitespace cannot appear between the number and the unit. However, if the value is 0, the unit can be omitted.

For some CSS properties, negative lengths are allowed.

There are two types of length units: relative and absolute.

Browser Support

The numbers in the table specify the first browser version that fully supports the length unit.

Length Unit	Firefox	Chrome	Safari	Opera	Internet Explorer
em, ex, %, px, cm, mm, in, pt, pc	1.0	3.0	1.0	1.0	3.5
ch	27.0	9.0	1.0	7.0	20.0
rem	4.0	9.0	3.6	4.1	11.6
vh, vw	20.0	9.0	19.0	6.0	20.0
vmin	20.0	9.0*	19.0	6.0	20.0
vmax	26.0	Not supported	19.0	Not supported	20.0

Note: Internet Explorer 9 supports vmin with the non-standard name: vm.

Relative Lengths

Relative length units specify a length relative to another length property. Relative length units scales better between different rendering mediums.

Unit	Description
em	Relative to the font-size of the element (2em means 2 times the size of the current font) Try it (tryit.asp?filename=trycss_unit_em)
ex	Relative to the x-height of the current font (rarely used) Try it (tryit.asp?filename=trycss_unit_ex)
ch	Relative to width of the "0" (zero)
rem	Relative to font-size of the root element
vw	Relative to 1% of the width of the viewport
vh	Relative to 1% of the height of the viewport
vmin	Relative to 1% of viewport's smaller dimension
vmax	Relative to 1% of viewport's larger dimension
%	



Tip: The em and rem units are practical in creating perfectly scalable layout!

Absolute Lengths

The absolute length units are fixed and a length expressed in any of these will appear as exactly that size.

Absolute length units are not recommended for use on screen, because screen sizes vary so much. However, they can be used if the output medium is known, such as for print layout.

Unit	Description	
cm	centimeters	Try it (tryit.asp?filename=trycss_unit_cm)
mm	millimeters	Try it (tryit.asp?filename=trycss_unit_mm)
in	inches (1in = 96px = 2.54cm)	Try it (tryit.asp?filename=trycss_unit_in)
px *	pixels (1px = 1/96th of 1in)	Try it (tryit.asp?filename=trycss_unit_px)
pt	points (1pt = 1/72 of 1in)	Try it (tryit.asp?filename=trycss_unit_pt)
pc	picas (1pc = 12 pt)	Try it (tryit.asp?filename=trycss_unit_pc)

* Pixels (px) are relative to the viewing device. For low-dpi devices, 1px is one device pixel (dot) of the display. For printers and high resolution screens 1px implies multiple device pixels.

« [Previous \(css_websafe_font\)](#)

[Next Reference » \(css_pxtoemconv\)](#)

Copyright 1999-2015 (/about/about_copyright.asp) by Refsnes Data. All Rights Reserved.