

CSS Units

here are various units in CSS to express the measurement and length. A CSS unit is used to determine the property size, which we set for an element or its content. The units in CSS are required to define the measurement such as *margin: 20px*; in which the **px** (or pixel) is the CSS unit. They are used to set margin, padding, lengths, and so on.

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

Absolute Lengths/units

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.

Absolute units are useful when the responsiveness is not considered in a project. They are less favorable for the responsive sites because they do not scale when the screen changes.

Generally, absolute lengths are considered to be the same size always. The absolute length units are tabulated as follows:

Unit	Name	Explanation
cm	Centimeters	It is used to define the measurement in centimeters.
mm	Millimeters	It is used to define the measurement in millimeters.
in	Inches	It is used to define the measurement in inches. 1in = 96px = 2.54cm

pt	Points	It is used to define the measurement in points. 1pt = 1/72 of 1 inch.
pc	Picas	It is used to define the measurement in picas. 1pc = 12pt so, there 6 picas is equivalent to 1 inch.
px	Pixels	It is used to define the measurement in pixels. 1px = 1/96th of inch

Default size of html element

HTML element	rank	example text	default stylesheet	pixel height
<code><h1> </h1></code>	1	h1	font-size: 2em font-weight: bolder	32 px
<code><h2> </h2></code>	2	h2	font-size: 1.5em font-weight: bolder	24 px
<code><h3> </h3></code>	3	h3	font-size: 1.17em font-weight: bolder	18.72 px
<code><h4> </h4></code>	4	<i>h4</i>	font-size: 1em font-weight: bolder	16 px
<code><h5> </h5></code>	5	h5	font-size: .83em font-weight: bolder	13.28 px
<code><h6> </h6></code>	6	h6	font-size: .67em font-weight: bolder	10.72 px

Normal text height is 1em / 16px.

Relative Lengths/units

Relative units are good to style the responsive site because they scale relative to the window size or the parent. They specify the length, which is relative to another length property.

Depending on the device, if the size of the screen varies too much, then the relative length units are the best because they scale better between the different rendering mediums. We can use the relative units as the default for the responsive units. It helps us to avoid update styles for different screen sizes.

Unit	Name
em	It is relative to the font-size of the element. It works multiple time of parent size. If the parent has 10px size and root has 2em it will become 20px size.
rem	It is the font-size of the root element. It will be the multiple times larger than current default size of root element.
vh	It is relative to the height of the viewport. 1vh = 1% or 1/100 of the height of the viewport.
vw	It is relative to the width of the viewport. 1vw = 1% or 1/100 of the width of viewport
vmin	It is relative to the smaller dimension of the viewport. 1vmin = 1% or 1/100 of the viewport's smaller dimension. Which one of vh or vw will be smaller it get the length same as that length.
vmax	It is relative to the larger dimension of the viewport. 1vmax = 1% or 1/100 of the viewport's larger dimension. Which one of vh or vw will be larger it get the length same as that length.
%	It is used to define the measurement as a percentage that is relative to another value. It relate to the parent element.