Absolute units

Theory | Practice | 9% completed, 0 problems solved

Theory

13 minutes reading

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CSS works with a variety of units of measurement that can help you specify the size of elements. These units can be **absolute** and **relative**. **Absolute units of measurement** have a fixed size. They are often used when working with text and can also be useful if you want to create an item the size of which will not change.

You have already tried using pixels in the values of some properties. Pixels are usually attributed to absolute units of measurement. In this topic, we will learn more about pixels and other absolute units.

§1. Pixels

Pixels are used more often than any other absolute units to specify the size of elements on the web pages intended for viewing on devices.

`px` defines the measurement in **pixels**.

```
p {
  height: 25px;
}
```

Pixels are units of a fixed size that are used for everything displayed on the computer screen. One pixel equals one point on the computer screen: this is the smallest division of your screen resolution. The main problem with pixels is that they cannot be enlarged for the convenience of users with poor vision or reduced for reading on mobile devices.

> Browsers do not always accurately calculate the size of the viewing area in pixels. They tend to adjust this unit to bring the viewing characteristics closer to a traditional desktop monitor, so some developers consider pixels a relative unit of measurement.

Units of measurement can be specified as a whole number or in a decimal form:

```
p {
  font-size: 12.5px;
  height: 150.5px;
}
```

§2. Other absolute units

Besides pixels, there are other absolute units of measurement. You have probably seen or used some of them outside of CSS.

- `cm` defines the measurement in **centimeters:**

```
p {
  font-size: 10cm;
}
```

- `mm` defines the measurement in **millimeters** (*10mm = 1cm)*:

```
p {
  font-size: 100mm; /* or 10cm */
}
```

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- Introduction to animation
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- Transform
- Box-Shadow

- `in` defines the measurement in **inches** (*1in = 2.54cm)*:

```
p {
  font-size: 4in; /* or 10.16cm */
}
```

- `pt` defines the measurement in **points** (*1pt = 1/72 of 1in)*:

```
p {
  font-size: 288pt; /* or 10.16cm */
}
```

- `pc` defines the measurement in **picas** (*1pc = 12pt)*:

```
p {
  font-size: 24pc; /* or 10.16cm */
}
```

Although centimeters, millimeters, inches, points, and picas are designed to display the elements on a web page, the browsers will not always be able to accurately calculate the physical size of the screen. This means that the elements dimensions of which are set with these units may have different dimensions on different devices. Therefore, it is best to use these units of measurement for printing web pages.

§3. Conclusion

Now you know the full range of absolute units of measurement in CSS. Remember that choosing a unit is not random, and different units are good for different situations. Now you will be able to create web pages for both printing and digital displays.

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