

4.5 Font and text properties

Font properties

Many CSS properties control the font properties for displaying text. CSS font properties include:

- The **font-family** property specifies the font family, such as "Times New Roman" or serif.
- The **font-size** property changes the font size, such as 120%, small, or 12px.
- The **font-weight** property specifies the font weight, such as normal or bold.
- The **font-style** property changes the text style, such as normal, italic, or oblique.
- The **font-variant** property specifies the variant of the text, such as normal or small-caps.
- The **font** property is shorthand for setting several font properties at the same time. Ex: `font: italic 12pt Georgia, serif;`

The **font-family** property contains a list of fonts specified as a family name or a generic family separated by commas.

- A **family name** is the name of a specific font, like "Times New Roman", "Arial", or "Georgia". Family names containing spaces must be wrapped in quotations marks, while family names without spaces do not.
- A **generic family** is a general group of fonts, like serif, sans-serif, cursive, fantasy, or monospace. Ex: Times New Roman and Georgia are both serif fonts because the fonts contain serifs, which are small strokes attached to the end of larger strokes on each letter.

The web browser will use the first font listed that is available. *Good practice is to start the list with the intended font and end with a generic family.* Ex:

`font-family: Arial, Helvetica, sans-serif;`

Table 4.5.1: Generic family names.

| Generic family | Distinguishing features | Example fonts |
|----------------|---|--|
| Serif | "Embellishments" like finishing strokes or flare ends | Garamond Georgia Times New Roman |

| | | |
|------------|--|---|
| Sans-Serif | Plain stroke ends | Arial Helvetica Verdana |
| Cursive | Cursive or calligraphy characteristics like joined strokes | <i>Brush Script MT</i> Comic Sans MS Lucida Handwriting |
| Fantasy | Decorative | Impact Luminari |
| Monospace | Constant width for letters, punctuation, and space | Consolas Courier New |

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Web fonts

*A limited number of fonts are available on all platforms: Arial, Courier New, Georgia, Times New Roman, and Verdana. Web developers can expand the number of fonts available by using web fonts. A **web font** is a CSS feature that allows custom fonts to be downloaded to the web browser. See the links in "Exploring further" for more information.*

PARTICIPATION ACTIVITY

4.5.1: Computing font properties.



Given the HTML below, answer the following questions regarding font properties.

```
<style>
p {
  font-family: "Verdana", "Arial", sans-serif;
}
#band {
  font-style: italic;
}
#music {
  font-variant: small-caps;
}
</style>

<p>
  My favorite band is <span id="band">The Shins</span>, because
  their
  <span id="music">music</span> is thought-provoking!
</p>
```

- 1) What is the most preferred font for the `<p>` element?

[Check](#)[Show answer](#)

Correct

"Verdana"

If available to the browser, the Verdana font family is used for the `<p>` element. Otherwise, the browser will try Arial, and then the generic font sans-serif.

- 2) What is the second most preferred font for the `<p>` element?

[Check](#)[Show answer](#)

Correct

"Arial"

If Verdana is not available, the browser uses the Arial font for the `<p>` element. If neither Verdana nor Arial are available, the browser uses the generic font sans-serif.

- 3) What is the third most preferred font for the `<p>` element?

[Check](#)[Show answer](#)

Correct

sans-serif

If neither Verdana nor Arial are available, the browser uses any available sans-serif font.

- 4) What is the text variant for the `` element with the `music` id?

[Check](#)[Show answer](#)

Correct

small-caps

The word music will render using small, upper-case letters, as in MUSIC.

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Font sizes

The font size can be specified using a predefined size name, a relative size name, or a number with an absolute or relative size unit. The predefined size names are **xx-small**, **x-small**, **small**, **medium**, **large**, **x-large**, and **xx-large**, where medium is the default size. The relative size names are **smaller** and **larger** which change the font size for an element to be smaller or larger than the font size of the parent element.

An **absolute size** is a size that is fixed and independent of other CSS sizes. Absolute size units include:

- **cm** - centimeters
- **mm** - millimeters
- **in** - inches
- **px** - pixels (1px = 1/96in)
- **pt** - points (1pt = 1/72in)
- **pc** - pica (1pc = 12pt)

A **relative size** is a size that is relative to another size. Some common relative size units include:

- **em** - Relative to the element's font size. Ex: 2em = 2 × current font size.
- **rem** - Relative to the root element's font size. Ex: 1.5rem = 1.5 × `<html>` element's font size.
- **vw** - 1% of the viewport's width. Ex: 10vw = 10% of browser's width.
- **vh** - 1% of the viewport's height. Ex: 5vh = 5% of browser's height.
- **%** - Percentage of the element's font size. Ex: 120% = 20% larger than the current font size.

Most web browsers use a default font size of 16px. However, users who struggle to read 16px fonts may change the browser's default font size to a larger size. *Good practice is to use relative font sizes, which scale with changes to the default browser font size.*

Table 4.5.2: Example font sizes.

| Example CSS | Displayed |
|----------------------------------|--|
| <code>font-size: x-large;</code> | You must be the change you wish to see in the world. |
| <code>font-size: smaller;</code> | You must be the change you wish to see in the world. |
| <code>font-size: 16px;</code> | You must be the change you wish to see in the world. |
| <code>font-size: 1.5rem;</code> | You must be the change you wish |

| | |
|------------------------------|--|
| | to see in the world. |
| <code>font-size: 120%</code> | You must be the change you wish to see in the world. |

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ACTIVITY**

4.5.2: Font sizes.



Assume the browser's default font size is 16px. What size does the given p selector make each paragraph?

1)

```
p {  
  font-size:  
  18px;  
}
```

- ☐ 16px
- ☒ 18px
- ☐ 20px

Correct

The selector specifies the font size is 18px, which overrides the default browser's font size. "px" is an absolute size, and absolute sizes should generally be avoided for setting font sizes.



2)

```
p {  
  font-size:  
  1.5rem;  
}
```

- ☐ 8px
- ☐ 16px
- ☒ 24px

Correct

The default font size is 16px, so $16\text{px} \times 1.5 = 24\text{px}$.



3)

```
p {  
  font-size:  
  50%;  
}
```

- ☒ 8px
- ☐ 16px
- ☐ 24px

Correct

The default font size is 16px, so $16\text{px} \times 50\% = 8\text{px}$.

[Feedback?](#)

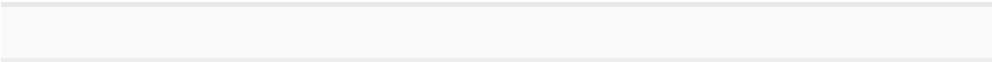
Text properties

Many CSS properties control how text is displayed. Some common CSS text properties include:

- The **text-align** property changes the horizontal alignment of text for an element. Possible values are: **left**, **right**, **center**, and **justify**.
- The **text-decoration** property can add or remove text decorations like underlining or a ~~line-through~~. Possible values are: **overline**, **line-through**, **underline**, and **none**.
- The **text-transform** property converts letters to UPPERCASE, lowercase, or Capitalizes Initial Letters. Possible values are: **uppercase**, **lowercase**, and **capitalize**.
- The **text-indent** property specifies the first line's indentation amount.

Table 4.5.3: Text alignment examples.

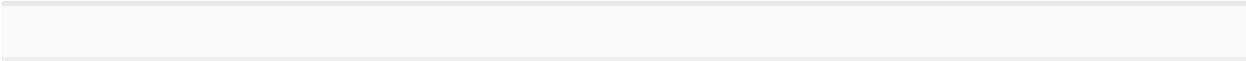
| Alignment | CSS example | Displayed |
|-----------|----------------------------------|--|
| left | <code>text-align: left</code> | Example of wrapped text using the horizontal alignment CSS property. |
| right | <code>text-align: right</code> | Example of wrapped text using the horizontal alignment CSS property. |
| center | <code>text-align: center</code> | Example of wrapped text using the horizontal alignment CSS property. |
| justify | <code>text-align: justify</code> | Example of wrapped text using the horizontal alignment CSS property. |



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Underlined links

The CSS `text-decoration: none` is commonly used to remove the default underline from links. The underline helps users quickly identify links, so developers should use caution when removing link underlines. Relying solely on color to identify links can be problematic to users that are color blind or insensitive.



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4.5.3: Text alignment.



Provide the CSS value that correctly styles the example text as displayed.

1)

Gears and Pulleys
The untold story of
power transference.

text-align:

center

Check[Show answer](#)**Correct**

center

The center alignment value center aligns the text in element.



2)

The following sentences
are examples of a
pangram, a sentence
that contains all of the
letters of the alphabet.
The quick brown fox
jumped over a lazy dog.
Pack my box with five
dozen liquor jugs.
Jackdaws love my big
sphinx of quartz. The
five boxing wizards jump
quickly. How vexingly
quick daft zebras jump!
Bright vixens jump; dozy
fowl quack. Forsaking
monastic tradition,
twelve jovial friars gave
up their vocation for a
questionable existence
on the flying trapeze.

text-align:

justify

Check[Show answer](#)**Correct**

justify

The justify alignment value stretches the spaces so each line of the text fills the width of the element.



3)

Due: July 4, 1776

text-align:

right

Correct

right



Check**Show answer**

The right alignment value pushes the text to the right side of the element.

[Feedback?](#)**PARTICIPATION
ACTIVITY**

4.5.4: Text properties.



Given the HTML below, select the correct text property and value to display the rendered browser text.

```
<style>
p {
  ....
}
</style>

<p>Knowledge comes, but wisdom lingers. - Lord Tennyson</p>
```

1)

Knowledge
comes, but
wisdom lingers. -
Lord Tennyson

Correct

underline draws a line under the text.



- text-
☐ decoration:
overline
- text-
☒ decoration:
underline
- text-
☐ transform:
underline

2)

Knowledge
Comes, But
Wisdom Lingers. -
Lord Tennyson

- ☐ text-
transform:
uppercase
- ☐ text-
decoration:
capitalize
- ☒ text-
transform:
capitalize

Correct

capitalize capitalizes the first letter of each word.



3)

Knowledge comes,
but wisdom lingers. -
Lord Tennyson

- ☒ text-indent:
20px
- ☐ text-indent:
-20px
- ☐ text-indent:
true

Correct

The first line is indented 20px to the right.

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ACTIVITY**

4.5.1: Font and text properties.



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[Jump to level 1](#)

1

For the <p> tag, set font-family to serif, and set font-style to italic.



2

SHOW EXPECTED**CSS** **HTML**

```
1 p {  
2  
3   /* Your solution goes here */  
4   font-family: serif;  
5   font-style: italic;  
6  
7 }
```

1

2

Check

Next



✓ Testing font-style of <p> tag

Yours

italic

Your webpage

Paragraph content

View your last submission ^

```
/* Your solution goes here */ font-family: serif;  
font-weight: lighter;
```

[Feedback?](#)

Exploring further:

- [CSS Fonts](#) from W3Schools
- [CSS Text](#) from W3Schools
- [CSS Web Fonts](#) from W3Schools
- [What's the best font size for the web?](#) by Robert Mohns

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