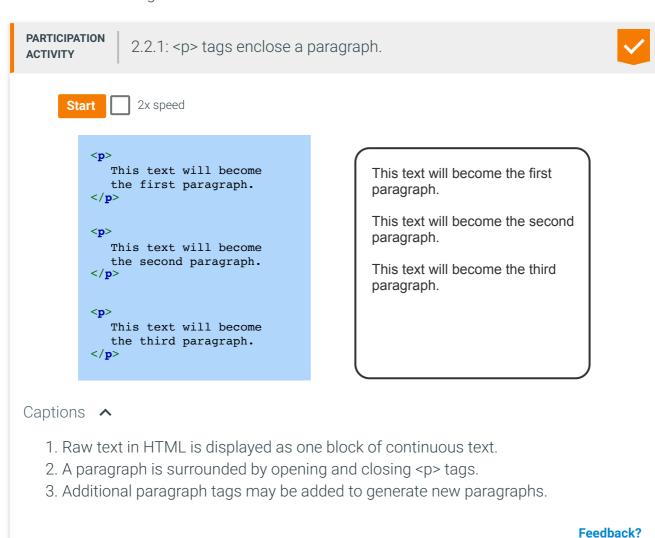# 2.2 Basic HTML tags

Paragraphs

A **paragraph** is the basic unit of text in an HTML document. A paragraph is enclosed in HTML by the **<p>** opening and closing tags. Browsers visually separate paragraphs from other text with spacing above and below.

A common error is forgetting the closing </p> tag, or trying to put a paragraph inside of another paragraph. The web browser might render nested <p> tags visually correct, but an HTML validator will generate an error.

PARTICIPATION ACTIVITY | 2.2.1: <p> tags enclose a paragraph. ✓

Start ☐ 2x speed

```
<p>
    This text will become
    the first paragraph.
</p>

<p>
    This text will become
    the second paragraph.
</p>

<p>
    This text will become
    the third paragraph.
</p>
```

This text will become the first paragraph.

This text will become the second paragraph.

This text will become the third paragraph.

Captions ⌃

1. Raw text in HTML is displayed as one block of continuous text.
2. A paragraph is surrounded by opening and closing <p> tags.
3. Additional paragraph tags may be added to generate new paragraphs.

Feedback?

PARTICIPATION ACTIVITY | 2.2.2: Add <p> tags to enclose the paragraphs. ✓

The following HTML is an example with two paragraphs. Notice that blank lines do not start a new paragraph in the rendered webpage. Add <p> opening and closing tags around each paragraph so that the rendered webpage shows two paragraphs.

Try adding extra spaces and blank lines between words to see how the rendered HTML changes.

```
1 This is the first sentence of the first paragraph. This is the se
2
3 This sentence is the first sentence of the second paragraph.
4 Here is the second sentence of the second paragraph.
```

Render webpage	Reset code

Your webpage

This is the first sentence of the first paragraph. This is the second sentence of the first paragraph. This sentence is the first sentence of the second paragraph. Here is the second sentence of the second paragraph.

▼ View solution

🗙 Explain

--- START FILE: HTML ---

<p>This is the first sentence of the first paragraph. This is the second sentence of the first paragraph.</p>
<p>This sentence is the first sentence of the second paragraph.
Here is the second sentence of the second paragraph.</p>

```
--- END FILE: HTML ---
```

Feedback?

| PARTICIPATION ACTIVITY | 2.2.3: Valid or invalid HTML. | ✓ |

Determine if the following HTML is valid or invalid.

1) `<p>The first widely-used web browser was Netscape Navigator.</p> <p>Then came Internet Explorer.</p>`

   ◉ Valid
   ○ Invalid

   Correct

   The paragraph opening and closing tags are used properly to create two paragraphs. However, paragraphs are usually placed on separate lines to make the HTML more readable to humans.

2) `<p>Apache is an open-source web server. <p>IIS is a web server created by Microsoft.`

   ○ Valid
   ◉ Invalid

   Correct

   Both paragraphs are missing paragraph closing tags `</p>`.

3) `<p>`HTML is an
acronym for
HyperText Markup
Language. `<p>`The
inspiration for
HTML was SGML,
the Standard
Generalized
Markup Language.
`</p>` HTML is
simpler than
SGML and adds
hyperlinks.`</p>`

Correct

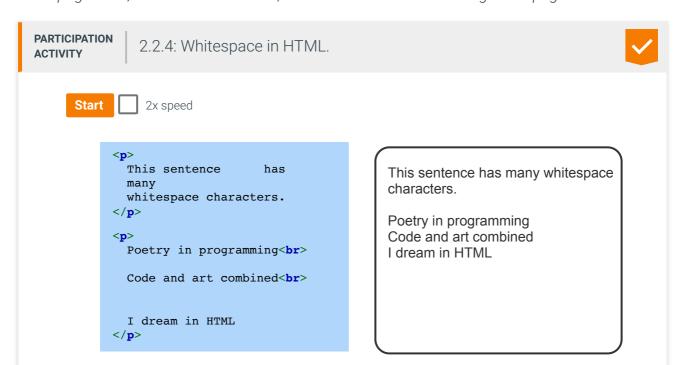HTML rules prohibit placing a paragraph inside another paragraph.

○ Valid

⦿ Invalid

Feedback?

Whitespace and line breaks

A **whitespace** character is an unprinted character such as the spaces between words and lines of text. Browsers treat all sequences of whitespace as a single space between non-whitespace characters. Ex: The three spaces in the HTML "hello   there" will be displayed with a single space "hello there". Whitespace characters include spaces, tabs, and newlines. So, a browser treats multiple lines of text as a single line.

The **
** tag creates a **line break** in a paragraph, such that the content after the line break appears on a new line. *Good practice is to use **
** when the line break is essential to the content, such as lines in a poem or mailing address, and not just to add spacing for formatting a webpage. CSS, discussed elsewhere, should be used for formatting a webpage.*

PARTICIPATION
ACTIVITY   2.2.4: Whitespace in HTML.

Start ☐ 2x speed

```
<p>
  This sentence      has
  many
  whitespace characters.
</p>

<p>
  Poetry in programming<br>

  Code and art combined<br>

  I dream in HTML
</p>
```

This sentence has many whitespace characters.

Poetry in programming
Code and art combined
I dream in HTML

Captions ^

1. Multiple spaces are displayed as one space when rendered.
2. Multiple blank lines are displayed as one space.
3. Adding <br> tags splits the displayed text into multiple lines.

Feedback?

| PARTICIPATION ACTIVITY | 2.2.5: Line break. | ✓ |

The following HTML fragment shows the address of the White House. Modify the HTML to include line breaks (`<br>`) so the rendered webpage matches the expected webpage.

```
1  <p>The White House
2  1600 Pennsylvania Avenue Northwest
3  Washington, DC 20500</p>
```
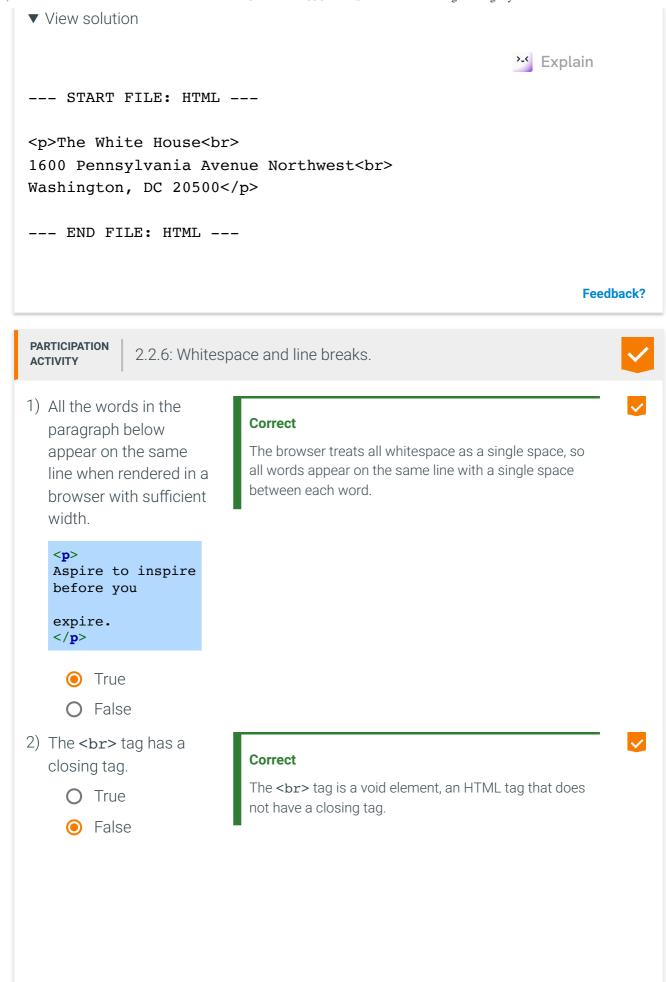
Render webpage   **Reset code**

Your webpage

The White House 1600 Pennsylvania Avenue Northwest Washington, DC 20500

Expected webpage

The White House
1600 Pennsylvania Avenue Northwest
Washington, DC 20500

▼ View solution

>< Explain

```
--- START FILE: HTML ---

<p>The White House<br>
1600 Pennsylvania Avenue Northwest<br>
Washington, DC 20500</p>

--- END FILE: HTML ---
```

Feedback?

PARTICIPATION ACTIVITY   2.2.6: Whitespace and line breaks.   ✓

1) All the words in the paragraph below appear on the same line when rendered in a browser with sufficient width.

```
<p>
Aspire to inspire
before you

expire.
</p>
```

Correct

The browser treats all whitespace as a single space, so all words appear on the same line with a single space between each word.

- ◉ True
- ○ False

2) The `<br>` tag has a closing tag.

- ○ True
- ◉ False

Correct

The `<br>` tag is a void element, an HTML tag that does not have a closing tag.
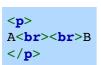
3) The letters A and B appear on separate lines with a blank line in between when rendered in a browser.

Correct

A
B displays A and B on separate lines.
A

B creates a blank line between A and B.

```html
<p>
A<br><br>B
</p>
```
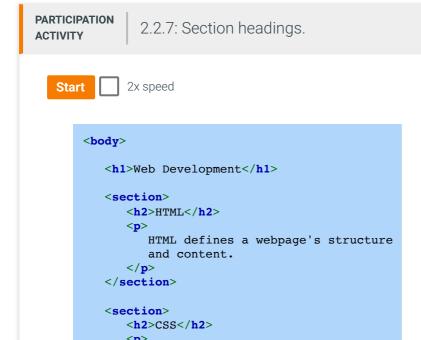
- ◉ True
- ○ False

Feedback?

Sections and headings

A ***section*** is a collection of related content. Many documents can be organized into sections, with each section being wrapped in a ***<section>*** tag. Ex: A scholarly article's abstract, introduction, main content, and references can each be wrapped in a `<section>` tag.

A ***heading*** provides a title for each section. Headings are bold by default and are visually separated from the other text by extra spacing. Heading tags exist for the first six levels of sections: ***<h1>***, ***<h2>***, ***<h3>***, ***<h4>***, ***<h5>***, and ***<h6>***. Headings are helpful to users who skim through a webpage, to assistive technologies like screen readers, and to search engines.

Good practice is to label each section with a heading and to select a heading tag that matches the document's hierarchical structure. A common error is to choose a heading tag based on the desired font size.

PARTICIPATION ACTIVITY	2.2.7: Section headings.

Start ☐ 2x speed

```html
<body>

   <h1>Web Development</h1>

   <section>
      <h2>HTML</h2>
      <p>
         HTML defines a webpage's structure
         and content.
      </p>
   </section>

   <section>
      <h2>CSS</h2>
      <p>
         CSS specifies a webpage's layout
         and visible appearance.
      </p>
   </section>
```

Web Development

HTML

HTML defines a webpage's structur and content.

CSS

CSS specifies a webpage's layout and visible appearance.

JavaScript

JavaScript describes a webpage's dynamic behaviors and actions.

```html
<section>
    <h2>JavaScript</h2>
    <p>
        JavaScript describes a webpage's
        dynamic behaviors and actions.
    </p>
</section>

</body>
```

Captions ⌃

1. A webpage usually has a single h1 heading. The heading is visually separated from other text by extra spacing and is displayed with a larger font.
2. Each section starts with an h2 heading, which has a smaller font than the h1 heading.

Feedback?

PARTICIPATION ACTIVITY	2.2.8: Sections and headings.	✓

1) A `<section>` tag should be placed inside a heading tag.

   ○ True
   ⦿ False

   Correct

   A `<section>` tag should contain a heading tag, but a heading should only have text in between the opening and closing tags.

2) An `<h3>` tag should be placed inside a `<p>` tag.

   ○ True
   ⦿ False

   Correct

   Heading tags should appear outside of and immediately before paragraph tags.

3) If `<h1>` text appears too big, `<h2>` or `<h3>` tags should be used to decrease the text size.

   ○ True
   ⦿ False

   Correct

   A heading tag is used to indicate the title and level of a section and not the formatting of section headings. The visual appearance of the heading tags can be changed with CSS.

Feedback?

PARTICIPATION ACTIVITY	2.2.9: Headings activity.	✓

The following HTML is missing headings. Add <h1> tags around the "Bill of Rights" section title, and <h2> tags around each "Article" section title, so that your webpage

matches the expected webpage.

```
 1  <body>
 2  Bill of Rights
 3  <p>The following are the bill of rights of the USA</p>
 4
 5  <section>
 6  Article 1
 7  <p>Body of article 1</p>
 8  </section>
 9
10  <section>
11  Article 2
12  <p>Body of article 2</p>
13  </section>
14
15  </body>
```

Render webpage   Reset code

Your webpage

Bill of Rights

The following are the bill of rights of the
USA

Article 1

Body of article 1

Article 2

Body of article 2

Expected webpage

Bill of Rights

The following are the bill of rights of
the USA

Article 1

Body of article 1

Article 2

Body of article 2

▶ View solution

Feedback?

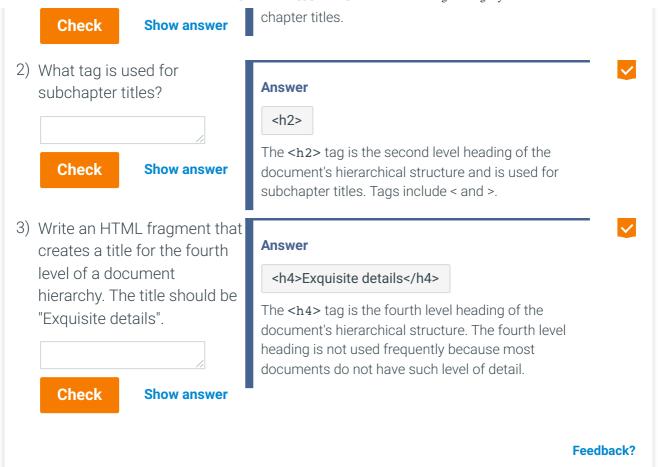| PARTICIPATION ACTIVITY	2.2.10: Hierarchical structure of documents.

1) Write a heading for a book
    chapter titled "Introduction".

Answer

<h1>Introduction</h1>

The `<h1>` tag is used for the top level of the
document's hierarchical structure and is used for

Check   **Show answer**   chapter titles.

2) What tag is used for subchapter titles?

[   ]

Check   **Show answer**

> **Answer**
>
> `<h2>`
>
> The `<h2>` tag is the second level heading of the document's hierarchical structure and is used for subchapter titles. Tags include < and >.

3) Write an HTML fragment that creates a title for the fourth level of a document hierarchy. The title should be "Exquisite details".

[   ]

Check   **Show answer**

> **Answer**
>
> `<h4>Exquisite details</h4>`
>
> The `<h4>` tag is the fourth level heading of the document's hierarchical structure. The fourth level heading is not used frequently because most documents do not have such level of detail.

Feedback?

Text formatting

A number of HTML tags cause the enclosed text to render in a different font in the browser:

- The ***<em>*** tag indicates ***emphasized*** text, such as text having an emphasized pronunciation when spoken, and is italicized by default.

- The ***<strong>*** tag indicates text that has ***strong importance***, and is bolded by default.

- The ***<cite>*** tag denotes a title, such as a book or song title, and is italicized by default. Ex:
  `<cite>Spaceballs</cite> is a parody of the <cite>Star Wars</cite>`
  yields: *Spaceballs* is a parody of the *Star Wars* trilogy.

- The ***<mark>*** tag denotes important content that should be semantically highlighted and is rendered with a yellow background by default. Ex:
  `<mark>Highlight</mark> what is important.` yields: <mark>Highlight</mark> what is important.

- The ***<b>*** tag indicates text that needs attention, like key words in a document abstract or product names in a review, and renders the text in ***bold***. Ex: Mix the **flour** and **oil** together.

- The ***<i>*** tag indicates text in an alternative voice, such as a word or phrase in a foreign language, and is rendered using ***italics***. Ex: *Dashi* is a stock used in Japanese cooking.

- The ***<u>*** tag denotes text that should appear differently from normal text, such as misspelled words, and is underlined by default. Ex: Misspelled is often misspelled as

mispelled.

Note

Historically, in HTML4, the `<b>`, `<i>`, and `<u>` tags were used to render text and did not have meaning, or semantics. Good practice is to avoid formatting tags whenever possible, and instead use tags to indicate meaning. Ex: The `<i>` tag can be used to emphasize text, but the `<em>` tag should be used to convey emphasis.
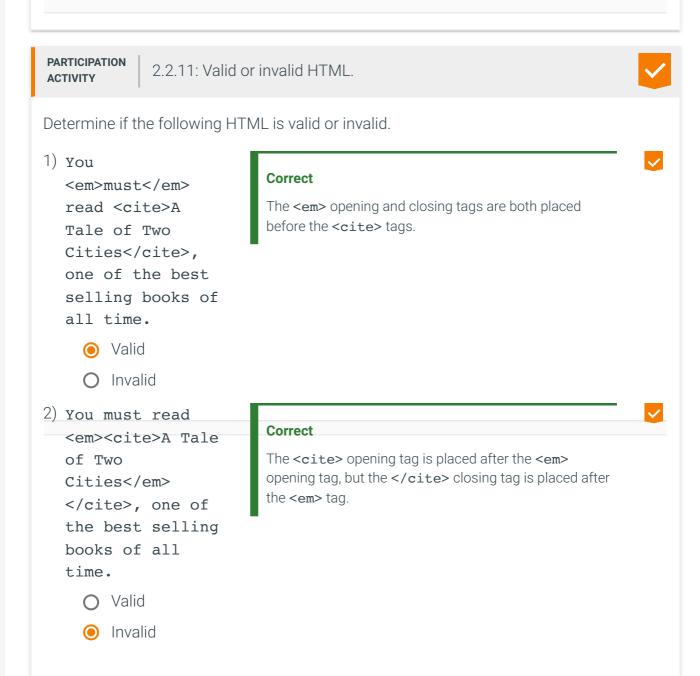
Table 2.2.1: Text-formatting tags.

HTML tag	HTML example	Rendered	Semantics
em	`<em>emphasis</em>`	*emphasis*	Emphasized text
cite	`<cite>cite</cite>`	*cite*	Title of a work
strong	`<strong>strong</strong>`	**strong**	Important text
mark	`<mark>mark</mark>`	mark	Marked or highlighted text
var	`<var>variable</var>`	*variable*	Definition of a variable in a computer program
kbd	`<kbd>keyboard</kbd>`	`keyboard`	Keyboard input
code	`<code>code</code>`	`code`	Computer code
samp	`<samp>sample</samp>`	`sample`	Sample output from a computer
b	`<b>bold</b>`	**bold**	Bold text
i	`<i>italic</i>`	*italic*	Text of an alternate voice or word from another language
u	`<u>underline</u>`	underline	Text that is rendered differently from normal text

Feedback?

Note

Many CSS libraries, such as Font Awesome and Bootstrap, use the `<i>` tag to insert icons or simple images. See [W3Schools Icons Tutorial](#) for more details.

PARTICIPATION ACTIVITY | 2.2.11: Valid or invalid HTML.

Determine if the following HTML is valid or invalid.

1) `You <em>must</em> read <cite>A Tale of Two Cities</cite>, one of the best selling books of all time.`

   ○ Valid
   ○ Invalid

   Correct

   The `<em>` opening and closing tags are both placed before the `<cite>` tags.

2) `You must read <em><cite>A Tale of Two Cities</em></cite>, one of the best selling books of all time.`

   ○ Valid
   ● Invalid

   Correct

   The `<cite>` opening tag is placed after the `<em>` opening tag, but the `</cite>` closing tag is placed after the `<em>` tag.

3) `<em>You must read <cite>A Tale of Two Cities</cite>, one of the best selling books of all time.</em>`

- ◉ Valid
- ○ Invalid

Correct

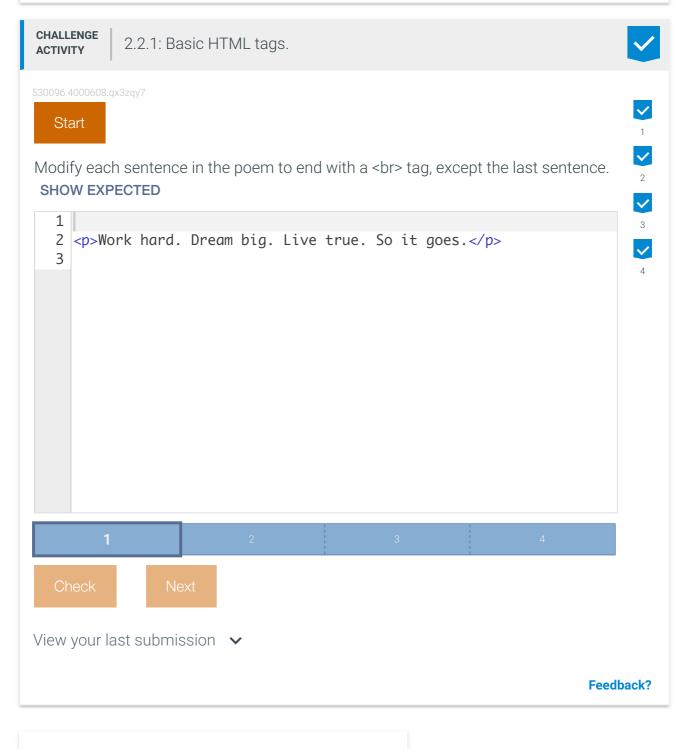The `<cite>` opening and closing tags may be placed between the `<em>` opening and closing tags. The entire sentence is being emphasized.

Feedback?

CHALLENGE ACTIVITY | 2.2.1: Basic HTML tags.

530096.4000608.qx3zqy7

Start

Modify each sentence in the poem to end with a <br> tag, except the last sentence.
SHOW EXPECTED

```
1
2 <p>Work hard. Dream big. Live true. So it goes.</p>
3
```

| **1** | 2 | 3 | 4 |

Check   Next

View your last submission ⌄

Feedback?

Exploring further:

[Headings and Sections](#) from HTML Living Standard

[HTML Text Formatting](#) from W3Schools

How was this section?

👍 | 👎   **Provide section feedback**