4.2 Basic selectors

Element, class, and ID selectors

CSS has many ways to specify the selector. Three common selector types are:

- 1. The **element selector** matches elements with the specified element names. Ex: p { color: blue; } selects all p elements.
- 2. The *class selector*, specified with a period character followed by the class name, matches elements that have the specified class name.
 - Ex: .notice { color: blue; } selects all elements with a class="notice" attribute.
- 3. The **ID selector**, specified with a hash character followed by the ID name, matches the element that has the specified ID.

Ex: #byLine { color: blue; } selects the element with the id="byLine" attribute.

HTML class names allow CSS rules and JavaScript code to modify all HTML elements belonging to a class. An HTML tag's **class attribute** specifies the classes to which the tag belongs, with each class name separated by a space. Ex:

 has two classes, highlight and first. While
HTML elements' IDs are unique, many elements may use the same HTML class name.



Captions ^

- 1. The default styling colors the text black with a white background.
- 2. The element selector p matches all paragraph elements and colors the text blue.
- 3. The class selector .gr matches all elements with the "gr" class attribute and colors the text green.
- 4. The ID selector #second matches the paragraph with "second" ID attribute and colors the text orange.

Feedback?

PARTICIPATION ACTIVITY

4.2.2: Element, class, and ID selectors.



Modify or add one CSS rule for each requirement below using the specified selectors.

- 1. Element selector: Change the text **color** from **green** to **blue** for the list items.
- 2. Class selector: Set the text-decoration to underline for all HTML elements with the class name footnote.
- 3. ID selector: Set the text color to orange and the font-style to italic for the HTML element with the ID footnote-1.



```
1 li {
2    color: blue;
3 }
4    .footnote {
5        text-decoration: underline;
6 }
7    #footnote-1 {
8        color: orange;
9        font-style: italic;
10 }
11
```

Render webpage

Reset code

Your webpage

Expected webpage

Facts about CSS

- According to Wikipedia, CSS was first proposed by Håkon Wium Lie on October 10, 1994.
 [1]
- The first W3C CSS Recommendation (CSS1) was released in 1996.
- CSS was selected over competing stylesheet technologies because CSS allowed a document's style to be influenced by multiple stylesheets by way of "cascading". [1]

Facts about CSS

- According to Wikipedia, CSS was first proposed by Håkon Wium Lie on October 10, 1994.
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▼ View solution

```
> Explain
```

```
--- START FILE: HTML ---
<section>
 <h2>Facts about CSS</h2>
  <u1>
     According to Wikipedia, CSS was first proposed by
Håkon Wium Lie on October 10, 1994.
       <a href="#footnote-1">[1]</a>
     The first W3C CSS Recommendation (CSS1) was
released in 1996.
     CSS was selected over competing stylesheet
technologies because CSS <cite>allowed a document's
       style to be influenced by multiple stylesheets by
way of "cascading".</cite>
       <a href="#footnote-1">[1]</a>
     Four years passed from when CSS1 was released
before any browser fully supported CSS1.
       <a href="#footnote-2">[2]</a>
  [1] <a
href="https://en.wikipedia.org/wiki/CSS#History"
target=" blank">
     Cascading Style Sheets history</a>. Retrieved March
31, 2022.
```

```
[2] <a
href="https://en.wikipedia.org/wiki/CSS#Difficulty with adopt
target=" blank">
      Difficulty with Adoption</a>. Retrieved March 31,
2022.
  </section>
--- END FILE: HTML ---
--- START FILE: CSS ---
li {
   color: blue;
}
.footnote {
   text-decoration: underline;
#footnote-1 {
   color: orange;
   font-style: italic;
}
--- END FILE: CSS ---
                                                           Feedback?
```

PARTICIPATION ACTIVITY

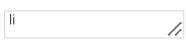
4.2.3: Element, class, and ID selectors.



Refer to the following HTML fragment.

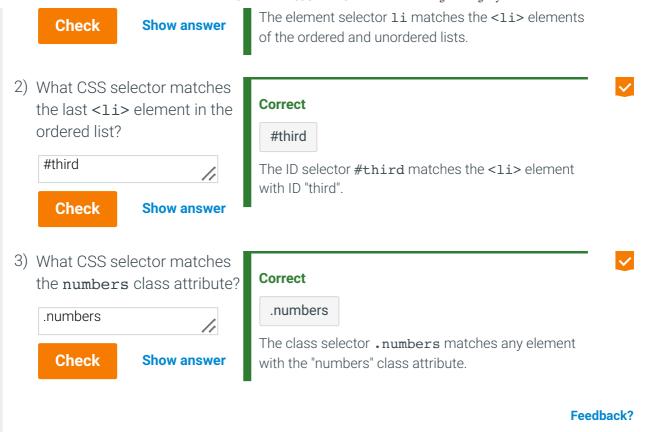
```
id="first">First number
 id="second">Second number
 id="third">Third <span class="important">number</span>
<u1>
 A bullet
 Another bullet
 Another <span class="important">important item</span>
```

1) What CSS selector matches all the elements?



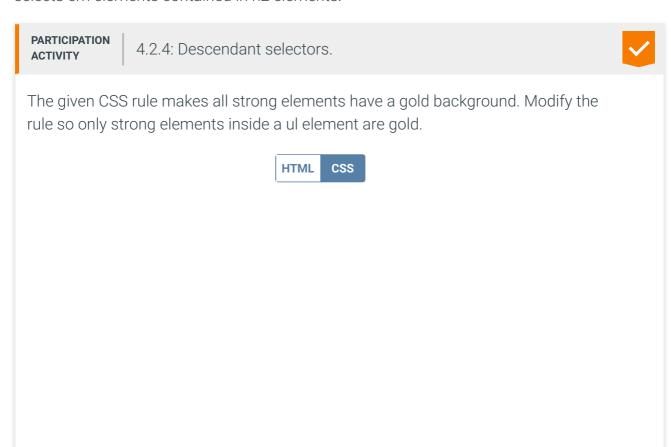
Correct





Descendant selector

The **descendant selector**, specified with a selector followed by a space and another selector, matches elements that are contained in other elements. Ex: h2 em { color: blue; } selects em elements contained in h2 elements.



```
1 /* Modify the rule below */
2 ul strong {
3   background-color: gold;
4 }
5
```

Render webpage

Reset code

Your webpage

Expected webpage

Some common idioms:

- The **ball** is in your **court**.
- Break a leg.
- It's the best thing since sliced bread.
- Jump on the bandwagon.

Some common idioms:

- The **ball** is in your **court**.
- Break a leg.
- It's the best thing since sliced bread.
- Jump on the bandwagon.

▼ View solution

```
Explain
```

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

<style>
ul strong {
   background-color: gold;
}

</style>
<body>

   Some common <strong>idioms</strong>:
```

```
    <!i>The <strong>ball</strong> is in your
<strong>court</strong>.
    <!i>Break a <strong>leg</strong>.
    <!i>It's the best thing since <strong>sliced
bread</strong>.
    <!i>Jump on the <strong>bandwagon</strong>.

Feedback?
```

PARTICIPATION ACTIVITY

4.2.5: Descendant matching.



Refer to the CSS below.

```
p span {
   background-color: yellow;
}
```

 Does "text" appear highlighted?

The
text
is highlighted.



O No

2) Does "text" in the first <1i> element appear highlighted?

```
    The
    <span>text</span>
is highlighted.

    The text is
not highlighted.
```

Yes

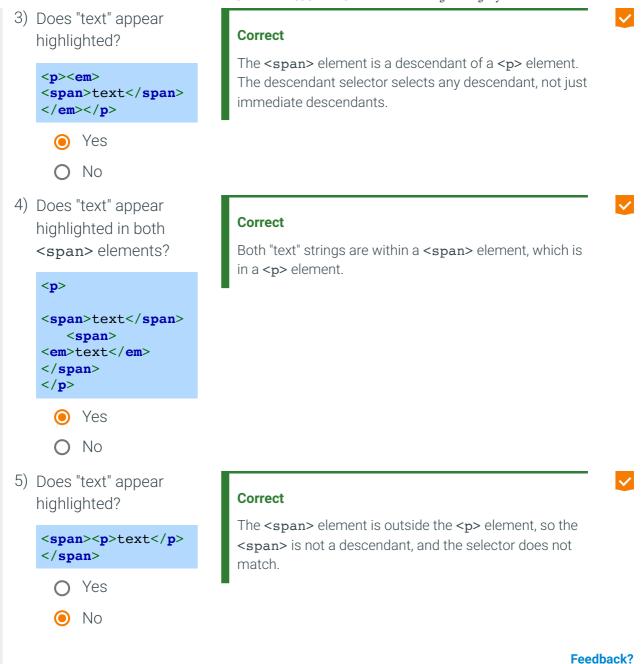


Correct

The descendant selector matches the element contained in the element, so "text" will appear highlighted.

Correct

The element in is not contained in a element, so the element is not a descendant, and the selector does not match.



Pseudo-class selector

The **pseudo-class selector**, specified with a colon character followed by a pseudo-class name, matches elements based on user behavior or element metainformation. Example pseudo-class selectors include:

- :disabled Element is disabled.
- :hover Mouse is hovering over the element.
- :empty Element has no child elements.
- :lang(language) Element contains text in a specified language.
- :nth-child(n) Element is the parent element's nth child.

Class selectors and pseudo-class selectors can combine with element names to match more specific elements. Ex: a:hover selects only the anchor tag the mouse is hovering over, and span.highlight selects only span elements that have the highlight class attribute.

PARTICIPATION ACTIVITY

4.2.6: Using pseudo-class selectors on a table.



The table displays the five countries that earned the most medals in the 2022 Winter Olympics in Beijing. Hovering the mouse over the text on the expected webpage's top row makes the text orange.

- 1. Add a new rule using the tr:nth-child(even) selector that makes every even tr child element have a lavender background color.
- 2. Add a new rule using the th: hover selector that changes the th element's text color to orange when the mouse hovers over the element.



```
1 /* Add additional rules below */
 2 table {
 3
      font-family: Arial;
      border: 2px solid black;
 4
 5 }
 6
 7 tr:nth-child(even) {
      background-color: lavender;
 8
 9 }
10
11 th:hover {
      color: orange;
12
13 }
```

Render webpage

Reset code

Your webpage

2022 Olympic Medal Counts							
Country	Gold	Silver	Bronze	Total			
Norway	16	8	13	37			
ROC	6	12	14	32			
Germany	12	10	5	27			
Canada	4	8	14	26			
USA	8	10	7	25			

2022 Olympia Madal Caupta

Expected webpage

Country	Gold	Silver	Bronze	Total			
Norway	16	8	13	37			
ROC	6	12	14	32			
Germany	12	10	5	27			
Canada	4	8	14	26			
USA	8	10	7	25			

2022 Olympic Medal Counts

> Explain

▼ View solution

```
--- START FILE: HTML ---
<style>
table {
  font-family: Arial;
 border: 2px solid black;
}
tr:nth-child(even) {
 background-color: lavender;
}
th:hover {
 color: orange;
</style>
<body>
   <caption>2022 Olympic Medal Counts/caption>
   Country
     Gold
     Silver
     Bronze
     Total
   Norway
     16
     8
     13
     37
   ROC
     6
     12
     14
     32
   Germany
     12
```

```
10
   5
   27
 Canada
   4
   8
   14
   26
 USA
   8
   10
   7
   25
 </body>
--- END FILE: HTML ---
```

Feedback?

PARTICIPATION ACTIVITY

4.2.7: Pseudo-class selectors.



1) Which selector makes a div element's background color change to light blue when the mouse hovers over any part of the div contents?

backgroundcolor: lightblue;
}

- ():hover
- div:hover
- O div.hover
- 2) The :nth-child pseudo-class can be

Correct

When the element selector div is combined with the :hover pseudo-class, the rule applies to only div elements.



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specified with "even" and "odd" values as well as a number representing the child's position, where 1 is the first child. What is missing to make the first list item purple?

li:nthchild(_____) {
 color:
purple;
}

- 0 0
- first
- 3) Which selector gives buttons with a disabled attribute a gray background?

background-color:
gray;
}

- O button
- button:disabled
- O button:enabled

The number 1 is the first child. An equivalent pseudoclass that selects the first child element is :firstchild. The :last-child pseudo-class selects the last child element.



The :disabled pseudo-class applies to buttons that have a disabled attribute. Buttons that are disabled cannot be clicked.

Feedback?

