

1. Describe in BEM terminology what the B, E, and M stand for.	<p>Block : standalone entity that is meaningful on its own Ex: header, container, menu, navbar, input</p> <p>Element - part of a block, no meaning on its own Ex: Element: menu item, list-item, header title, input label</p> <p>Modifier: A flag on a block or element used to change appearance or behavior Ex: disabled, color (ie yellow), size (ie big), fixed</p>
2. Describe these attributes: font-size: font-weight: font-style: font-family: text-transform: text-decoration: text-align:	<p>font-size: size of the letters font-weight: boldness of the letters font-style: normal, italic, oblique font-family: actual font - like Arial, Helvetica, sans-serif text-transform: text casing text-decoration: underlining text-align: text justification (left, right, etc)</p>
3. Does the universal selector affect specificity? Combinators like >?	No! Both have no impact on specificity.
4. Explain and use the shorthand versions of grid-column and grid-row to define how an element will span a grid layout.	<p>grid-column: grid-column-start / grid-column-end grid-row: grid-row-start / grid-row-end can use grid-area with grid-template-areas to visualize grid layout grid-template-areas: each string represents one row use grid-areas name to define region element will take up grid-area: grid-row-start / grid-column-start / grid-row-end / grid-column-end</p>
5. Given the following CSS rule, write a media query that would change the product-index container so the items appear in a vertical fashion for a viewport width less than or equal to 300px: .product-index { __display: flex; } .product-index__item { __background-color: blue; }	<pre>@media screen and (max-width: 300px) { __.product-index { ____flex-direction: column; __} }</pre>
6. hat is the overflow-y property?	The overflow-y property specifies whether to clip the content, add a scroll bar, or display overflow content of a block-level element, when it overflows at the top and bottom edges.
7. How do you adjust items along the cross-axis (up, down, center)?	Use align-items: flex-start, flex-end, center, etc.
8. How do you adjust items along the main axis (left, right, center, etc.)?	Use justify-content: flex-start; flex-end; center
9. How do you assign an element to a grid area?	Use grid-area (with the grid template area name you previously assigned)
10. How do you create a grid?	Set the grid container class's display to grid or inline-grid
11. How do you create spans across multiple columns and rows?	Use grid-column-start / grid-column-end and grid-row-start / grid-row-end
12. How do you import other CSS files into your CSS file?	@import "html or localpath"
13. How do you put items into the grid?	All direct children of the grid container automatically become grid items. All direct children of the grid container automatically become grid items.

14. How do you set the areas between elements in the grid?	These areas are called gutter areas. Use grid-column-gap, grid-row-gap, grid-gap
15. How do you specify the layout of the grid?	Use grid-template-columns, grid-template-rows, and grid-template properties to specify the layout of the grid using relative and absolute measures.
16. How would you compose a CSS BEM class with a modifier?	.block_elem--mod
17. How would you create a BEM class name for a nav list-container with a shadow?	nav_list-container--shadow
18. How would you write out all the relevant properties of a grid_container?	<pre>.grid_container { __display: grid; grid-column-gap: 50px; __grid-row-gap: 50px; grid-gap: 50px 100px; / row, column / grid __template-columns: repeat(4 1fr) /can use px, or auto or combined to specify number of cols / __grid-template-rows: 80px 200px / ditto above / __justify-content: space-between; /space-around, center, start, end, space-evenly / __align-content: space-around; / space-evenly, space-around, space-between, center, start, end / __grid-template-areas: 'area area . . .' / (template area "area" uses two of 5 cols) / 'area1 area2 area3 area4 area5' / to name areas used in grid items to indicate where item goes / }</pre>
19. If I wanted my CSS to create an element in the HTML, how would I do that?	<p>Pseudo-elements:</p> <pre>selector::pseudo-element { property: value; }</pre> <p>/ The first line of every <p> element. /</p> <pre>p::first-line { color: blue; text-transform: uppercase; }</pre>
20. If I wanted to apply the same style to your body, div, paragraph, span, unordered list and line item elements in a single rule, what would I do?	<p>Use commas:</p> <pre>body, div, p, span, ul, li { color: red; }</pre>
21. If I want to set a color with some level of transparency, how do I do that?	Use rgba() instead of rgb, where the final argument is the level of transparency between 0 and 1, where 0 is totally invisible, and 1 is completely solid.
22. If you wanted to create an element on the page that would stay in the same place relative to the document, even if I scroll or change the size of the window, what property would I use?	<p>position: fixed!</p> <p>The element is removed from the page flow and is typically positioned relative to the document itself and not to an ancestor element. It is positioned using the top, right, bottom and left properties. The element remains in the same spot on the page, regardless of viewport size or scrolling.</p>

23. If you want to set an element to a specific position on the page, never to have its position interrupted by any other element, what position setting would you choose?	position: absolute Remember, with position absolute a parent must be set to a non-static setting. If not, the element will be positioned relative to the document root. Also remember, this position setting will allow the element to scroll out of view.
24. In the following list, choose which elements have "inline" display value: div span p a button ul textarea	span a button textarea
25. Under what condition does the overflow property work?	It only works for block elements with a specified height
26. What are the 3 absolute length measures in CSS?	pt: point px: pixel cm: centimeter
27. What are the arguments of box-shadow? How do they differ from text-shadow?	offset-x, offset-y, blur-radius, color You can also set your text-shadow to inherit, initial, or unset
28. What are the arguments of the border property?	border: 1px solid lightblue; 1. thickness (like 2px, or 3em...) 2. line style(solid, dotted, dashed, double, groove, ridge, hidden ...) 3. line color (red, rgb(255, 255, 255), etc.
29. What are the different steps of the AJAX request & response cycle?	Trigger: in order to know when to run an AJAX cycle, we need to have event listeners that triggers a request to the server. Try/Catch: depending on if you use an async function or chain a series of .then, you want to setup the framework for your error handling. Fetch: now that an event has been triggered, we use JS to build a request (can be any of the 5 HTML request types) depending on what we want to do. Typically we use fetch. Async: wait for that promise to be fulfilled, then save the result into a variable. Parse: now we've got our data, we need to run another async process - parse, typically JSON Act: finally we're actually going to do something with that data from our server (though in some select use cases, we don't need to do anything), like update the DOM, or trigger another function.
30. What are the four types of media that a media query can target?	all: Able to work on every device print: Anytime a document is set to print mode, with the intention of printing screen: Any phone, tablet, computer, smart device, etc. speech: For use with speech synthesizers

31. What are the overflow properties and values?	<p>visible: The overflow is not clipped. It renders outside the element's box. This is default</p> <p>hidden: The overflow is clipped, and the rest of the content will be invisible</p> <p>scroll: The overflow is clipped, but a scroll-bar is added to see the rest of the content</p> <p>auto: If overflow is clipped, a scroll-bar should be added to see the rest of the content</p> <p>initial: Sets this property to its default value.</p> <p>inherit: Inherits this property from its parent element</p>
32. What are the property display values?	<p>inline</p> <p>inline-block</p> <p>block</p> <p>grid</p> <p>flex</p>
33. What are the rules for using a flex box?	<p>A flexible layout must have a parent element with the display property set to flex.</p> <p>Direct child elements of the flexible container automatically become flexible items.</p>
34. What are the types of shadow?	<p>text-shadow or box-shadow</p>
35. What are the typical grid_item properties?	<pre>.grid_item { grid-column-start: 1; grid-column-end: 3; //or use grid-column: 1 / span 3; //start on column 1, span 3 columns 1 / 3; // start on 1, end on 3 grid-row-start: 1; grid-row-end: 3; grid-row: 1 / span 3; //start on row 1, span 3 rows; 1 / 3; // start on row 1, end on row 3; grid-area: area1; // named area related to grid-template-areas on grid_container 1 / 2 / 5 / 6 // (row start, col start, row end, col end) }</pre>
36. What does AJAX stand for?	<p>Asynchronous JavaScript and XML</p>
37. What does align-items do in a flex-box? What are it's options?	<p>It defines the default behavior for how items are laid out along the cross axis.</p> <p>Options are: flex-start, flex-end, center, baseline, stretch.</p>
38. What does align-self do? What are its options?	<p>It makes it possible to override the align-items value for a specific flex item.</p> <p>It accepts the same 5 values as align-items: flex-start, flex-end, center, baseline, stretch.</p>
39. What does flex-direction do? What are its options?	<p>Defines how flexbox items are ordered within a flexbox container.</p> <p>Choices are: row, row-reverse, column, column-reverse</p>
40. What does flex-wrap do? What are its options?	<p>Defines whether the flex items are forced in a single line, or can be flowed into multiple lines.</p> <p>Options: nowrap(default), wrap, wrap-reverse</p>

41. What does justify-content do in a flex-box? What are its options?	<p>It defines the alignment along the main axis.</p> <p>The values are: flex-start; flex-end; center; space-between; space-around; space-evenly.</p>
42. What does order do in a flex box?	Sets the order of each item. For instance, if you have 5 boxes, you can set one box to be the 5th box which will push the first 4 boxes to the left and this box will be the 5th box.
43. What does overflow: hidden do?	If the content is too large to fit in the box, the content that does not fit will not be displayed.
44. What does the overflow CSS property do?	It specifies what should happen if content overflows an element's box. This property specifies whether to clip content or to add scrollbars when an element's content is too big to fit in a specified area.
45. What do the r g and b in rgb() mean?	They represent the level of saturation of the three primary colors: red, green, blue (confusing I know, those aren't the primary colors I learned about as a kid.. but color theory is dumb like that)
46. What do we call a selector like hover or focus?	<p>Pseudo selectors! Specifically, this is a pseudo-class.</p> <pre>ul:hover { color: red; }</pre>
47. What is absolute position?	Element is removed from the flow of the document and other elements will behave as if it's not even there whilst all the other positional properties will work on it
48. What is a default overflow value?	visible: The overflow is not clipped. It renders outside the element's box if it overflows.
49. What is an AJAX request?	AJAX is a group of different technologies that work together to allow a website to communicate with a server in the background without requiring the website to reload in order to display new changes.
50. What is an em?	This is a relative length unit in CSS. It is based relative to its parent
51. What is a pseudo-element?	Pseudo-elements behave as if you had added a whole new HTML element into the markup, rather than applying a class to an existing element. They start with a ::
52. What is a psuedo class?	A pseudo-class is a selector that selects elements that are in a specific state. e.g. :hover or :first-child
53. What is a rem?	This is a relative length unit in CSS. It is based upon the root's value.
54. What is fixed position?	Always relative to the document, not any particular parent, and are unaffected by scrolling.
55. What is margin?	The space between one html element and another html element. Unlike padding, we don't consider margin to be a part of the element
56. What is padding?	The innermost part of the box model -- creating space around an element's content (like putting on a puffy jacket)
57. What is relative position?	Positioned relative to itself; i.e. the element is still in the flow of the document, but now left/right/top/bottom/z-index will work.
58. What is static position?	The default positioning of all elements
59. What is the default positioning setting?	position: static is default. However, the element set to position static will not be able to be used to position its children.
60. What is the different between box-sizing: border-box; and box-sizing: content-box?	border-box includes the border and padding in the width and height, while content-box does not include the border and padding.
61. What is the 'fr' unit of measure?	fr: fraction unit of measure used for creating grid layout
62. What is the most common use for position: relative?	Setting the parent element to a non-static value, such that child elements may be positioned relative to this parent. Any non-static setting will allow this, but relative is the most common choice.

63. What is the overflow-x property?	Overflow-x specifies whether to clip the content, add a scroll bar, or display overflow content of a block-level element, when it overflows at the left and right edges.
64. What is the z-index?	z-index refers to the "third dimension" i.e. stacking elements on top of each other. A higher z-index means bringing the element to the top.
65. What position setting completely removes itself from the document flow, and what is that position dependent upon?	position: absolute; <ul style="list-style-type: none"> - Completely removes the element from the document flow. - Elements around it position themselves as though the element didn't exist - Absolute in conjunction with top, bottom, left, right, reference the parent element who's position is NOT static. - If there is no parent element that is NOT static, then the position of top, bottom, etc, will be relative to the root document - Position absolute will scroll out of view.
66. What position setting initially is relative, but as you scroll it becomes fixed to the top of the page?	position: sticky This is a combination of both relative and fixed position. While you scroll, this position remains relative. But as you scroll the parent out of view this becomes fixed position, never scrolling out of view.
67. What position setting will allow you to position the element with (top, bottom, left, right) relative to its normal position?	position: relative position: relative does not change anything on its own, without setting top, bottom, left, and right
68. What properties can we use to manipulate the children elements of a flex?	flex-grow: determines how much available space the element will take up (1, 2, 3*) So if you have 3 elements, and one is set to flex-grow: 3, this element gets 3 times the size, and the other elements get smushed to fit flex-basis: initial item size; can set to auto which will evenly distribute the elements within the flex box flex-shrink: determines how much the flex item can shrink relative to the rest
69. What properties control the way elements are laid out in a flex-box?	justify-content: alignment & distribution of space along the x (aka the main) axis align-items: alignment along the y (aka the cross) axis
70. What property do I use in a CSS rule to add an image to the background of an element?	background-image: url(<relative path or url>)
71. What property do you use to set the font color?	color:
72. What property would we use to label areas of a grid?	grid-template-areas: "area1 area2 area2" "area3 area2 area2" "area4 area5 area6"
73. What selector would I use when writing a rule I wanted to apply to all the direct children of an element, as well as all of their children?	The space selector, i.e: ul li { color: red }
74. What selector would I use when writing a rule I wanted to apply to all the direct children of an element, but not all of their children?	The direct child selector: > ul > li { color: red }
75. What to attributes must a link element have to bring a new stylesheet?	a rel & an href: rel="stylesheet" href="file.css"

76. What would you use if you want to lock an element into a specific position, not dependent upon a parent element, which will remain in the same position regardless of scrolling?	<p>position: fixed</p> <p>Again note: Position fixed is similar to position absolute BUT rather than positioning itself relative to a parent element, it positions itself relative to the document and a specific on-screen position. However, unlike position absolute, when scrolling begins, this element will not move with the scrolling.</p>
77. When it comes to modern programming, what are the two main features of AJAX we care about and why?	<p>Asynchronous - we can do a thing, whether that's PATCH or GET or DELETE, and we won't impact our users' ability to do other things on the page.</p> <p>Javascript engine - because we use JS to handle the "thinking" in our page, we don't need to rely on HTML to build or rebuild the page after changes. Instead we can use JS to make the necessary inserts/changes/deletions.</p>
78. Which of the following has block as their default display value: div span p a button ul textarea	<p>div p ul</p>
79. Why does a flex-box layout use the word flex?	<p>Because the size of the box is responsive to the height & width of the viewport - as it gets bigger or smaller in either of those directions, the size of the box will "flex".</p>
80. Why do we use AJAX?	<p>We don't have to refresh the entire HTML page, and it's a smaller amount of data that needs to be transferred.</p> <p>Without AJAX we would make a request, and get back the full HTML of the page, which in some cases can be a pretty large amount of data.</p>
81. Why do we use web fonts?	<p>Without loading web fonts, you are depending upon the browser to have the font you specify -- which may not be the case. Either downloading a font, or using a web font alleviates that problem and you can be assured the font will always be available.</p>
82. Write an event listener that checks to see if an element with the id of downvote has been clicked, then write a fetch to update the server, parse the response, update the DOM (element with an id of score), and handle an error. Use an async function.	<pre>const downvote = document.querySelector('#downvote') const score = document.querySelector('#score') downvote.addEventListener('click', async () => { __try { ____let res = await fetch('http://localhost:3000/kitten/downvote', {method: 'PATCH' }) ____if (!res.ok) throw res ____let parsed = await res.json() ____score.innerHTML = parsed.score } catch (e) { ____let parsedErr = e.json() ____alert(parsedErr) } });</pre>

83. **Write an event listener that checks to see if an element with the id of downvote has been clicked, then write a fetch to update the server, parse the response, update the DOM (element with an id of score), and handle an error.**

Use .then method.

```
const downvote =  
document.querySelector('#downvote')  
const score = document.querySelector('#score')  
  
downvote.addEventListener('click', () => {  
  __fetch('http://localhost:3000/kitten/downvote',  
    {method: 'PATCH' } )  
  _____.then(res => res.json() )  
  _____.then(res => score.innerHTML = res.score)  
  _____.catch(handleError(error));  
});
```
