Questions WK3:

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1. **How can D3 access and change the DOM? What do <u>select</u> and <u>selectAll</u> do?**

   D3's selections are just nested arrays with extra methods on them; if you have .<u>select()</u> a single DOM element

2. **What are the <u>d</u> and <u>i</u> in <u>function(d){}</u> and <u>function(d, i){}</u>?**

   I is het aantal datapunten dat je hebt. Bij mij dus van 1 – 11
   D is de waarde van deze datapunten

3. **Write sample lines of JavaScript to add a <u>div</u> element with class "barChart1" and to add an svg element with class "barChart2" with square dimensions.**


   ```
   <body>
           <div class="barChart1"></div>
   </body>
   ```

   Dit is een svg circle:
   ```
   <svg width="100" height="100">
     <circle cx="50" cy="50" r="40" stroke="green" stroke-
   width="4" fill="yellow" />
   </svg>
   ```

4. **Describe <u>append</u>, <u>update</u>, <u>enter</u>, and <u>exit</u> at a high level. What does "selectAll + data + enter + append" refer to?**

   A common pattern is to break the initial selection into three parts: the updating nodes to modify, the entering nodes to add, and the exiting nodes to remove.

   Enter / exit: you can also add or remove elements to correspond to data.

   SelectAll: To set the class and color style of all paragraph elements in the current document:

   selection.append: returns a new selection containing the new elements. This conveniently allows you to chain operations into the new elements.

   Enter: you can create new nodes for incoming data and remove outgoing nodes that are no longer needed.

Exit: you can create new nodes for incoming data and remove outgoing nodes that are no longer needed.

5. **What are the main differences between drawing a bar chart with HTML and SVG?**

   - SVG graphics do NOT lose any quality if they are zoomed or resized
   - SVG images can be created and edited with any text editor
   - SVG images can be searched, indexed, scripted, and compressed
   - SVG images are scalable
   - SVG images can be printed with high quality at any resolution
   - SVG images are zoomable (and the image can be zoomed without degradation)
   - SVG is an open standard
   - SVG files are pure XML

6. **In drawing the simple bar chart with D3 and SVG, what elements were appended, and what parts of the graph did these elements correspond to?**

   Elements that were appended: "g" elements.
   These elements respond to the bars in the bar chart.