## **Language Fundamentals**

The following program is designed to compute "overtime" pay for a worker, but it isn't working correctly. Fix any syntax, logic or runtime errors so that the code works as expected.

```
var hours = prompt("How many hours did you work? ");
var rate = prompt(parseFloat("What is your hourly rate? "));
if (hours < 40)
  var pay = hours * rate;
if (hours > 40)
  var pay = 40 * rate;
  var overtimePay = (hours-40) * (rate*1.5);

document.write("Your pay this week is: ", pay);
```

Given the following array, write a program that randomly "deals" each card in the deck to the user and displays that card to the screen in some way.

```
var cards = ['ace of spades', 'king of spades', 'queen of spades', 'jack of spades'];
```

## **Language Fundamentals**

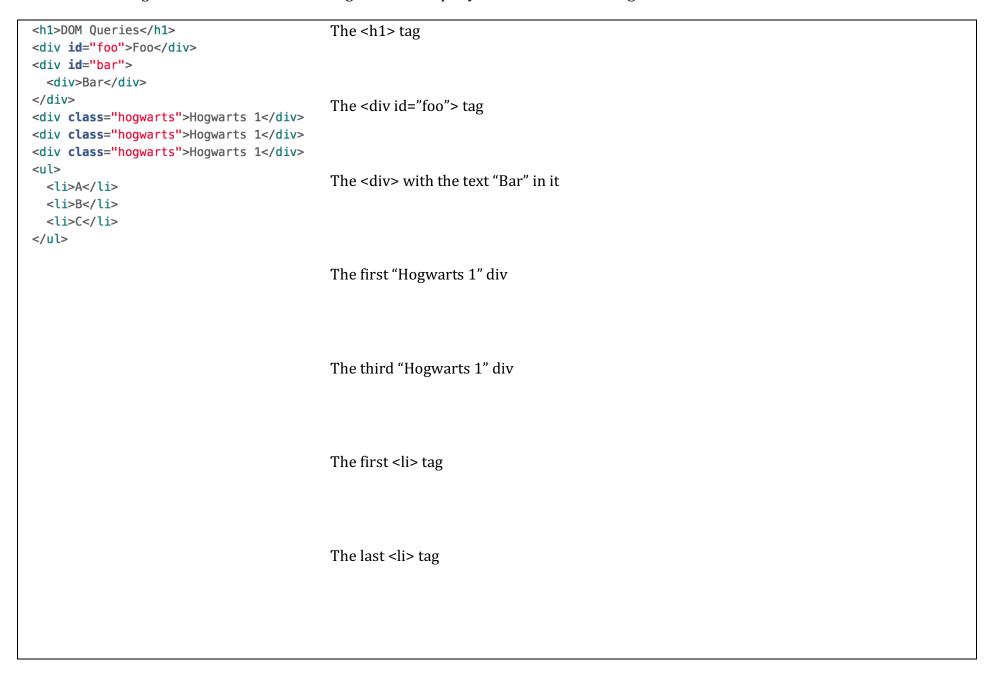
The following array contains a listing of different coins (q = quarters, d = dimes, etc).

Write a program that determines the frequency of each type of coin (i.e. 4 quarters, 2 dimes, etc). Your output does not need to be "pretty" – just come up with something that counts how many of each item type is in the array.

You cannot assume that the items listed below are the only items in the array, nor can you assume that the array will be this short (it could be much, much longer).

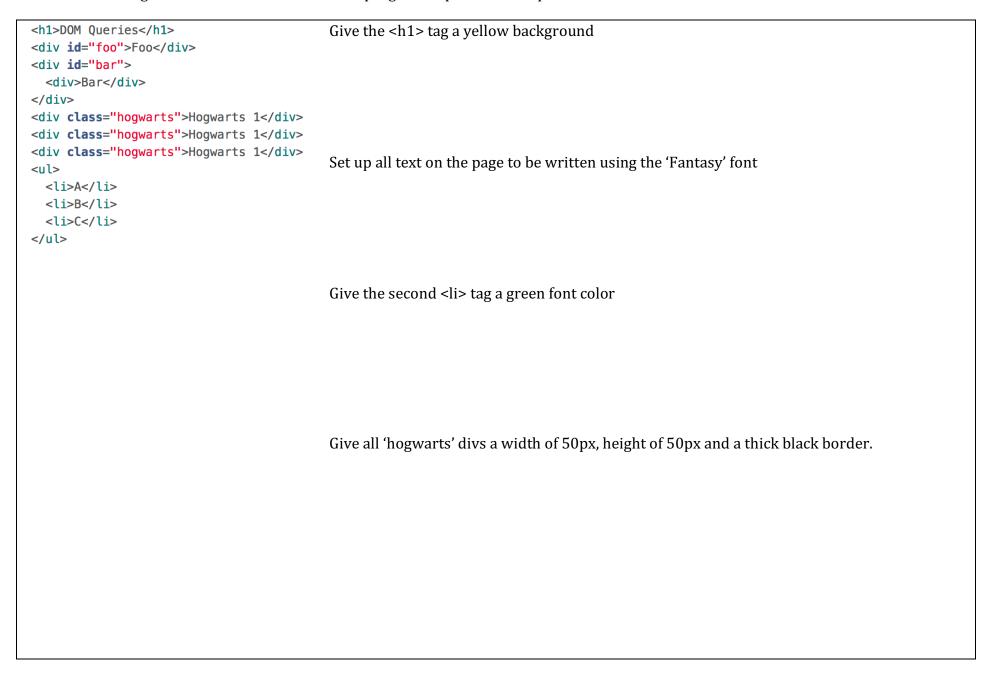
### **DOM Queries**

Given the following HTML document, write a single line DOM query to isolate the following elements



### **Updating DOM Attributes**

Given the following HTML document, write a short program to perform the specified actions.



# **Events**

Given the following HTML document, write a series of short code snippets to solve the problems being asked.

<h1>Events</h1>	When the user clicks 'button1', the first div should get a yellow background.
<pre><div>     <img src="images/pikachu.png"/>     <img src="images/squirtle.png"/>     </div></pre>	
<pre><div>     <img src="images/pikachu.png"/>     <img src="images/squirtle.png"/>     </div></pre>	When the user clicks 'button2', the second div should get a yellow background.
<button id="button1">Button 1</button> <button id="button2">Button 2</button>	When the user hovers over any image, that image should get a blue background
	When the user stops hovering over an image, that image should no longer have a blue background.

### **DOM Augmentation**

Given the following HTML document, write a series of short code snippets to solve the problems being asked.

```
<h1>DOM Augmentation</h1>
<button id="button1">Button 1</button>
<button id="button2">Button 2</button>
<div id="one">
</div>
<div id="two">
</div>
```

When the user clicks 'button1', the program should create a new image. If there are an even # of images in the 'one' div, then the image source file should be 'images/pikachu.png'. If not, the source file should be 'images/squirtle.png'. Add this newly created image to the 'one' div.

When the user clicks 'button2', the program should take the first image in the 'one' div and move it to the 'two' div.

# **JavaScript Function Reference**

## **Core language functions & commands**

alert
console.dir
console.log
else
else if
function
for
if
prompt

while

# DOM functions & properties

addEventListener appendChild createElement children insertBefore getAttribute classList dataset firstElementChild getElementById getElementsByTagName getElementsByClassName lastElementChild nextElementSibling onclick onmouseover onmouseout onkeypress onkeyrelease onkeydown parentElement previousElementSibling querySelector querySelectorAll removeChild setAttribute style