

DWA_03.4 Knowledge Check_DWA3.1

1. Please show how you applied a Markdown File to a piece of your code.

```
1  ## JavaScript Code Example
2
3  ```javascript
4  // This is a JavaScript function that calculates the factorial of a number
5
6  function factorial(n) {
7      if (n === 0 || n === 1) {
8          return 1;
9      } else {
10         return n * factorial(n - 1);
11     }
12 }
13
14 console.log(factorial(5)); // Output: 120
```

2. Please show how you applied JSDoc Comments to a piece of your code.

```
/**
 * This function updates the number of books left and then prints
 * that number on the button used to show more books.
 * @returns { number } the number of books left that haven't been
 * loaded to the page
 */
```

3. Please show how you applied the @ts-check annotation to a piece of your code.

```
// @ts-check

/**
 * Calculates the sum of two numbers.
 * @param {number} a - The first number.
 * @param {number} b - The second number.
 * @returns {number} The sum of the two numbers.
 */
function sum(a, b) {
  return a + b;
}

// This will produce a type error because the arguments should be numbers.
console.log(sum("2", 3)); 23
```

4. As a BONUS, please show how you applied any other concept covered in the 'Documentation' module.

```
/**
 * Calculates the area of a rectangle.
 * @param {number} width - The width of the rectangle.
 * @param {number} height - The height of the rectangle.
 * @returns {number} The area of the rectangle.
 */
function calculateRectangleArea(width, height) {
  return width * height;
}
```
