Mock revision Question Set 3

You just joined SP movie club and you are asked to create a movie app in JavaScript. You are asked to refactor the code and reuse data as shown in Annex A.

ANNEX A

```
let movie_name = ["Black Panther: Wakanda Forever 2022", "Avatar: The Way of the Water", "Fast X", "Ant-Man and the Wasp: Quantumania", "M3GAN"];
let genre = ["Aventure, Action, Drama, Fantasy, Sci-Fi, Thriller", "Adventure, Sci-Fi", "Crime, Action, Mystery, Thriller", "Adventure, Action", "Horror, Mystery, Triller"];
let running_time = [161, 192, 43, 120, 102];
let rating = ["9, 42", "4, 15", "28, 60", "18, 80", "20, 70"];
```

QUESTION 1

Use all the variables and information in Annex A and create their corresponding properties in an array of movie object literals called **movieArray**.

Each movie object literal should have the following properties:

- title
- genre
- runningTime (in minutes)
- rating (number of votes, sum of votes)

Write a function called **createObjectsUsingArrays** that takes in the 4 arrays above as input parameters, and updates the **movieArray** as the 5th input parameter.

You should code this in Section A of the template script and then try displaying all the items in one of properties in Section B.

QUESTION 2

Create a function displayMovieTitles. This should display all movie object literals in the movie array.

Call the function with the array to test that it works:

No.	Movie Name
1.	Black Panther: Wakanda Forever 2022
2.	Avatar: The Way of the Water
3.	Fast X
4.	Ant-Man and the Wasp: Quantumania
5.	M3GAN

QUESTION 3

Create a function **addParsedTime** should take the movieArray object literals and process their **runningTime** properties and convert them to hours and minutes, and then store them as a single string as a new property called parsedTime in each movie object literal.

Call the addParsedTime function with the movieArray after writing it. Then write a simple for loop to print all movies' parsedTime properties to check that the data has been correctly parsed as shown below:

```
2h 41m
3h 12m
43m
2h
1h 42m
```

QUESTION 4

Create a function **addAverageRating** that:

- takes the data in the 'rating' property in each movie object literal,
- calculates the average rating, and
- stores the calculated value in a new **averageRating** property on the respective movie object literal.

For example, "9, 42" in a rating property means that the total rating is 42, and the number of people rated is 9. Therefore:

- the average rating is = 42/9 = 4.67

Try invoking the function. In addition, you should then display the averageRating properties on the array to check the data has been correctly parsed as shown below:

```
4.67
3.75
2.14
4.44
3.50
```

QUESTION 5

Write a function, printAllMovies. This function should take in the array of movie object literals and display all movie details. Each movie printed should include the movie name, genre, running time (in hours and minutes) and average rating.

Write the function and then try invoking it. Check that you are able to obtain the output below.

```
Name:   Black Panther: Wakanda Forever 2022
Genre:  Aventure, Action, Drama, Fantasy, Sci-Fi, Thriller
Running Time:   2h 41m
Average Rating: 4.67

Name:   Avatar: The Way of the Water
```

```
Genre:  Adventure, Sci-Fi
Running Time:   3h 12m
Average Rating: 3.75

Name:   Fast X
Genre:  Crime, Action, Mystery, Thriller
Running Time:   43m
Average Rating: 2.14

Name:   Ant-Man and the Wasp: Quantumania
Genre:  Adventure, Action
Running Time:   2h
Average Rating: 4.44

Name:   M3GAN
Genre:  Horror, Mystery, Triller
Running Time:   1h 42m
Average Rating: 3.50
```

QUESTION 6

Write a function printLowestHighestRatings(). This function should look for and print the lowest and highest ratings in the array of movie object literals, and then print their corresponding movie name.

Write the function and invoke it to check that you are able to obtain the output below.

```
Movie with highest rating is: Black Panther: Wakanda Forever 2022, rating: 4.67;
Movie with lowest rating is: Fast X, rating: 2.14
```