

# JS Problem solving sheet

- Create an ordinary project folder with one index.html, css folder (including 3 files: index.css, font awesome css file, bootstrap css file), and one JS folder including 2 files : bootstrap js file and your index.js file.
- In your index.js file start to Code each question to determine the goal of the question.
- Separate each code of each question with `//Comment` the question number.
- Use `console.log` to print the output.
- After finishing, comment all the code( `(Alt+a) ⇒ (ctrl+/-)` ) , ZIP your project folder and send it like an ordinary assignment.
- Read carefully the following questions and wisely and start to code the js code that determines the output.

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**Using IF condition and loops only and without switch case or array or object or any built in methods, code the following questions:**

1- Write a program that allows the user to enter a number then print it.

Ex: if the user enter 5 as a number ⇒ should log a 5

Ex: if the user enter 2 as a number ⇒ should log a 2

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2- Write a program that takes a number from the user then print yes if that number can divide by 3 and 4 **at the same time**, otherwise print no.

Ex: if the user enters 12 as a number  $\Rightarrow$  should log a **yes**.

Ex: if the user enters 19 as a number  $\Rightarrow$  should log a **no**.

**Hint:** the number should have no remaining after division on 3 and 4 to print yes.

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3- Write a program that allows the user to insert 2 integers then print the max.

Ex: if the user enters 5 and 7 as numbers  $\Rightarrow$  should log a 7.

Ex: if the user enters 2 and 0 as numbers  $\Rightarrow$  should log a 2.

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4- Write a program that allows the user to insert an integer then print negative if it is negative number, otherwise print positive.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log a **Positive**.

Ex: if the user enters -2 as a number  $\Rightarrow$  should log a **Negative**.

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5- Write a program that takes 3 integers from the user then prints the max element and the min element.

Ex: if the user enters 5 and 6 and 1 as numbers  $\Rightarrow$  should log a 6 is the **max** and 1 is the **min**

Ex: if the user enters 10 and 10 and -1 as numbers  $\Rightarrow$  should log a 10 is the **max** and -1 is the **min**

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6- Write a program that allows the user to insert an integer number then check if a number is even or odd.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log an **Odd**.

Ex: if the user enters 6 as a number  $\Rightarrow$  should log an **Even**.

**Hint:** the number should have no remaining after division on 2 to print Even.

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7- Write a program that take character from user then if it is vowel chars (a,e,i,o,u) then print vowel otherwise print consonant

**Note:** lowercase and uppercase are important.

Ex: if the user enters a or A as a character  $\Rightarrow$  should log **Vowel**.

Ex: if the user enters s or S as a character  $\Rightarrow$  should log **Consonant**.

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8- Write a program that allows the user to enter a number then print all the numbers starting from 1 **to the** user entered number.

Ex: if the user enter 5 as a number  $\Rightarrow$  should log a 1,2,3,4,5

Ex: if the user enter 7 as a number  $\Rightarrow$  should log a 1,2,3,4,5,6,7

**Hint:** Loops are helpful when you want to make pattern steps or when you want to make a code repeat many times.

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9- Write a program that allows the user to insert an integer then print a multiplication table up to 12.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log 5,10,15,20,25.

Ex: if the user enters 3 as a number  $\Rightarrow$  should log 3,6,9,12,15,18,21.

**Hint:** Loops are helpful when you want to make pattern steps or when you want to make a code repeat many times.

10- Write a program that allows the user to enter a number then print all the only evens numbers starting from 1 **to the** user entered number.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log 2,4.

Ex: if the user enters 13 as a number  $\Rightarrow$  should log 2,4,6,8,10,12.

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11- Write a program that allows the user to enter two numbers and print the result to make the second number power the first number.

Ex: if the user enters 2 and 10 as a number  $\Rightarrow$  should log 1024.

Ex: if the user enters 4 and 3 as a number  $\Rightarrow$  should log 64.

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12- Write a program to enter marks of five subjects and calculate total, average and percentage.

**Note:** The total subject mark is from 100 and user should be able to enter 5 numbers; each number presents a subject mark.

Ex: enter first mark: 60

enter second mark: 70

enter third mark: 68

enter fourth mark: 76

enter fifth mark: 92

Should log ( total : 366, average : 73.2 and percentage : 73.2%)

Ex: enter first mark: 95

enter second mark: 76

enter third mark: 58

enter fourth mark: 90

enter fifth mark: 89

Should log ( total : 408, average : 81.6 and percentage : 81.6%)

**Hint:** Loops are helpful when you want to make pattern steps or when you want to make a code repeat many times.

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13- Write a program to input the month number and print the number of days in that month.

Ex: if the user enters 10 as a number  $\Rightarrow$  should log 31 days.

Ex: if the user enters 6 as a number  $\Rightarrow$  should log 30 days.

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14- Write a program to enter marks of five subjects and find percentage and grade.

**Note:** The total subject mark is from 100 and the grades ranges are :

A grade from 90 to 100,

B grade from 80 to 90,

C grade from 70 to 80,

D grade from 50 to 70

F grade under 50.

Ex: enter first mark: 60

enter second mark: 70

enter third mark: 68

enter fourth mark: 76

enter fifth mark: 92

**Should log** enter first mark: D and 60%

enter second mark: C and 70%

enter third mark: D and 68%

enter fourth mark: C and 76%

enter fifth mark: A and 92%

Ex: enter first mark: 95

enter second mark: 76

enter third mark: 58

enter fourth mark: 90

enter fifth mark: 89

**Should log** enter first mark: A and 95%

enter second mark: C and 76%

enter third mark: D and 58%

enter fourth mark: A and 90%  
enter fifth mark: B and 89%

**Hint:** Loops are helpful when you want to make pattern steps or when you want to make a code repeat many times.

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**Using switch case only and without array or object or any built in methods, code the following questions:**

15- Write a program to input the month number and print the number of days in that month.

Ex: if the user enters 10 as a number ⇒ should log 31 days.

Ex: if the user enters 6 as a number ⇒ should log 30 days.

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16- Write a program that take character from user then if it is vowel chars (a,e,i,o,u) then print vowel otherwise print consonant

**Note:** lowercase and uppercase are important.

Ex: if the user enters a or A as a character ⇒ should log **Vowel**.

Ex: if the user enters s or S as a character ⇒ should log **Consonant**.

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17- Write a program that takes 2 integers from the user then prints the max element.

Ex: if the user enters 5 and 6 as numbers ⇒ should log a 6 is the **max**.

Ex: if the user enters 10 and -1 as numbers ⇒ should log a 10 is the **max**.

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18- Write a program that allows the user to insert an integer number then check If a number is even or odd.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log an **Odd**.

Ex: if the user enters 6 as a number  $\Rightarrow$  should log an **Even**.

**Hint:** the number should have no remaining after division on 2 to print Even.

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19- Write a program that allows the user to insert an integer then print negative if it is negative number, or print positive if it is a positive number or zero if it is zero.

Ex: if the user enters 5 as a number  $\Rightarrow$  should log a **Positive**.

Ex: if the user enters -2 as a number  $\Rightarrow$  should log a **Negative**.

Ex: if the user enters 0 as a number  $\Rightarrow$  should log a **Zero**.

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20- Write a program to create Simple Calculator.

Ex: if the user enters 5 and 6 as numbers and + as character  $\Rightarrow$  should log 11.

Ex: if the user enters 10 and 2 as numbers and - as character  $\Rightarrow$  should log 8.

Ex: if the user enters 3 and 4 as numbers and \* as character  $\Rightarrow$  should log 12.

Ex: if the user enters 12 and 6 as numbers and / as character  $\Rightarrow$  should log 2.

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**Welcome to JS, wish all the best** ❤️