

Fullstack Development Milestone Test 1

Round 1

1. Which of the following is not JavaScript Data Types? (Easy)

- A. Undefined
- B. Number
- C. Boolean
- D. Float (Correct)

2. Which of the following is incorrect about features of JavaScript? (Easy)

- A. JavaScript is case insensitive. (Correct)
- B. JavaScript is an object-based scripting language.
- C. JavaScript is a scripting language and it is not java.
- D. All of the above

3. What will be the output of the below code snippet? (Medium)

```
var string1 = "Letsfindcourse";  
var intvalue = 30;  
alert( string1 + intvalue );
```

- A. Letsfindcourse 30
- B. 30
- C. Letsfindcourse30 (Correct)
- D. Exception

4. Which one of the following is a ternary operator in JavaScript? (Medium)

- A. #
- B. ::
- C. &:
- D. ?: (Correct)

5. What does javascript use instead of == and !=? (Medium)

- A. It uses bitwise checking
- B. It uses === and !== instead (Correct)
- C. It uses equals() and notequals() instead
- D. It uses equalto()

6. Which of the following is not the looping structures in JavaScript? (Easy)

- A. for
- B. while
- C. forwhich (Correct)
- D. dowhile

7. What are the different types of data types in JavaScript? (Easy)

- A. Primitive
- B. Reference types.
- C. All of the above (Correct)
- D. None of the above

8. Which keyword is used to find the type of a JavaScript variable? (Medium)

- A. typeof (Correct)
- B. type
- C. var
- D. None of the above

9. The below statement is an example of: (Medium)

```
while (3==3) {}
```

- A. typographical error
- B. An infinite loop (Correct)
- C. An illegal JavaScript statement
- D. None of the above

10. What will be the output of the below code? (Medium)

```
console.log( typeof( '5' + 5))
```

- A. number
- B. string (Correct)
- C. object
- D. null

11. What will be the output of the below code snippet? (Medium)

```
let x=0;  
for(x;x<10;x++);  
console.log(x);
```

- A. 0
- B. 9
- C. 10 (Correct)
- D. error

12. What are the trivial data types in JavaScript? (Medium)

- A. null
- B. undefined
- C. Both A and B (Correct)
- D. None of the above

13. JavaScript is untyped language. (Medium)

- A. True (Correct)
- B. False

14. Which of the following are reserved words in JavaScript? (Medium)

- A. enum
- B. long
- C. finally
- D. All of the above (Correct)

15. What is the output of the below snippet? (Difficult)

```
let i = 0;  
let j = '0';  
console.log(i===j);
```

- A. true
- B. undefined
- C. false (Correct)
- D. none of the above

16. What is the output of the below snippet? (Difficult)

```
let i = 0;  
let j = '0';  
console.log(i==j);
```

- A. false
- B. undefined
- C. true (Correct)
- D. none of the above

17. What is the output for below code? (Medium)

```
var x = 10;  
y = --x + 1;  
alert(y);
```

- A. 10 (Correct)
- B. 11
- C. Error
- D. 0

18. Which keyword is used to stop the execution inside the switch block? (Medium)

- A. Switch
- B. break (Correct)
- C. case
- D. exit

19. What will be the output of the below code snippet? (Difficult)

```
var a = 10;
do {
    a += 1;
    console.log(a);
} while (a < 5);
```

- A. 11121314
- B. 112
- C. 1234
- D. 11 (Correct)

20. Which of the following statements are true? (Medium)

- A. Switch cases use **strict** comparison (===).
- B. The values must be of the same type to match.
- C. A strict comparison can only be true if the operands are of the same type.
- D. All of the Above (Correct)

21. What will be the output of the below code snippet? (Difficult)

```
var a = 0;
var b = 0;
while (a < 3)
{
    a++;
    b += a;
    console.log(b);
}
```

- A. 135 (Correct)
- B. 123
- C. 013
- D. 01

22. Which type of loop is best known for its **Boolean** condition that controls entry to the loop? (Medium)

- A. do-while loop
- B. for (traditional)
- C. for-each
- D. while (Correct)

23. What will this code log in the console? (Easy)

```
function sayhello(){  
  console.log('hello');  
}  
console.log(sayhello());
```

- A. undefined
- B. hello (Correct)
- C. an object with a constructor property
- D. an error message

24. When would you use a conditional statement? (Medium)

- A. When you want to reuse a set of statements multiple times.
- B. When you want your code to choose between multiple options. (Correct)
- C. When you want to group data together.
- D. When you want to loop through a group of statement.

25. Which statement is the correct way to create a variable called rate and assign it the value 100? (Easy)

- A. let rate = 100; (Correct)
- B. let 100 = rate;
- C. 100 = let rate;
- D. rate = 100;

26. What is the result in the console of running this code? (Difficult)

```
console.log(program);  
var program = "Javascript";
```

- A. error
- B. undefined (Correct)

- C. null
- D. Javascript

27. What is the result in the console of running this code? (Difficult)

```
console.log(program);  
const program = "Javascript";
```

- A. error (Correct)
- B. undefined
- C. null
- D. Javascript

28. What will this code print? (Difficult)

```
var v = 1;  
var f1 = function () {  
  console.log(v);  
};
```

```
var f2 = function () {  
  var v = 2;  
  f1();  
};
```

```
f2();
```

- A. 2
- B. 1 (Correct)
- C. Error
- D. Undefined

29. What type of scope does the end variable have in the code shown? (Medium)

```
var start = 1;  
if (start == 1) {  
  let end = 2;  
}
```

- A. conditional
- B. block (Correct)
- C. globe
- D. function

30. What is the result in the console of running this code? (Difficult)

```
const program = "Javascript";  
program = "JAVA";  
console.log(program);
```

- E. error (Correct)
- F. undefined
- G. JAVA
- H. Javascript

31. What is the output of the below code snippet? (Difficult)

```
sum(10,20);  
diff(10,20);  
function sum(x,y){  
return x + y;  
}
```

```
let diff = function(x,y) {  
return x -y;  
};
```

- A. 30, ReferenceError, 30, -10
- B. 30, ReferenceError (Correct)
- C. 30, -10
- D. ReferenceError, -10

32. What is the result in the console of running this code? (Difficult)

```
console.log(program);  
let program = "Javascript";
```

- A. error (Correct)
- B. undefined
- C. null
- D. Javascript

33. What will the value of y be in this code? (Difficult)

```
const x = 6 % 2;  
const y = x ? 'One': 'Two';
```

- A. One
- B. Undefined
- C. True
- D. Two (Correct)

34. What is the result in the console of running this code? (Difficult)

```
{  
    let program = "Javascript";  
}  
console.log(program);
```

- A. error (Correct)
- B. undefined
- C. null
- D. Javascript

35. What is the result of running this statement? (Easy)

```
console.log(typeof(42));
```

- A. 'float'
- B. 'value'
- C. 'number' (Correct)
- D. 'integer'

36. Which statement is used to skip iteration of the loop? (Medium)

- A. break
- B. pass
- C. skip
- D. continue (Correct)

37. What are the different types of scope in JavaScript? (Medium)

- A. Block scope
- B. Function scope
- C. Global scope
- D. All of the above (Correct)

38. Local Variables are destroyed after execution of function. (Easy)

- A. True (Correct)
- B. False

39. Variables declared with the var keyword can NOT have block scope. (Medium)

- A. True (Correct)
- B. False

40. What of the following are true about local variables? (Easy)

- A. only recognized inside their functions
- B. variables with the same name can be used in different functions.
- C. created when a function starts, and deleted when the function is completed.
- D. All of the above (Correct)

Round – 2

1. Factorial of N

Problem Statement

Raghu is a school student. In the math's class the teacher asks us to find the factorial of a given number n. write a program to find the factorial of given number n.

Constraint

Input should be a number

Explanation:

Factorial of 5 is $5 \times 4 \times 3 \times 2 \times 1 = 120$

Factorial of 3 is $3 \times 2 \times 1 = 6$

Input Format

Input should be a number

Output Format

Factorial of a given number in integer

Sample Input 1 :

5

output :

120

Sample Input 2 :

3

output :

6

Sample Input 3 :

8

output :

40320

Sample Input 4 :

10

output :

3628800

Sample Input 5 :

12

output :

479001600

Template:

```
let inp = readline();
function factorial (n) {

    let fact = 1;

    // use process.stdout.write("hello") to print the output
    //implement your logic here - you dont have to return anything, print the output here

    return fact;

}

console.log(factorial(parseInt(inp)));
```

Solution:

```
let inp = readline();
function factorial (n) {

    let fact = 1;

    for (let i = n; i > 0; i--) {

        fact *= i;

    }

    return fact;

}

console.log(factorial(parseInt(inp)));
```

IdeOne link - <https://www.ideone.com/tPydRL>

2. Algebra

Problem Statement

Ram is a school student and he has to solve the formula

$(a + b)^2$ is equal to $a^2 + 2ab + b^2$ for given number a and b. Write a program to help ram to find the solution for the given formula

Constraint

a and b should be number not a string

$$(a + b)^2 = a^2 + 2ab + b^2$$

Input Format

a and b are integers

Output Format

$$(a+b)^2$$

Sample Input 1 :

2 2

output :

16

Sample Input 2 :

9 3

output :

144

Sample Input 3 :

4 4

output :

64

Sample Input 4 :

9 8

output :

289

Sample Input 5 :

10 10

output :

400

Template:

```
let inp = readline().split(' ');

function algebra (a, b) {

    // use process.stdout.write("hello") to print the output
    //implement your logic here - you dont have to return anything, print the output here

    return (a_ + (2 * ab) + b_);
}

console.log(algebra(parseInt(inp[0]), parseInt(inp[1])));
```

Solution:

```
let inp = readline().split(' ');

function algebra (a, b) {
    let a_ = a * a;
    let b_ = b * b;
    let ab = a * b;
    return (a_ + (2 * ab) + b_);
}

console.log(algebra(parseInt(inp[0]), parseInt(inp[1])));
```

IDEOne link - <https://www.ideone.com/60k2wu>