SAT Javascript Test 24 Jan 2026.

1) data types in Javascript:

* Number, let a = 10;
* Bigint, let b = 10n;
* let c = "Hello"; string
* Boolean, let d = true;
* Null, let f = null;
* undefined, let e;
* Object → Store multiple values.

2) Results using multiple if else statement:-

```
let mark = number(prompt("Enter your mark"));
if (mark >=90){
    console.log("Grade A");
}
else if (mark >=75){
    console.log("Grade B");
}
else if (mark>=50){
    console.log("Grade C");
}
else{
    console.log("Fail");
}
```

output:
mark = 76
Grade B

3) Different types of operators :-

* Arithmetic operators
* Assignment operators
* comparison operators
* Logical operators
* Ternary operators.

1) Arithmetic operators :

* It is used for calculation

Example : +, -, *, %, /

```
let a=10, b=5;
console.log(a+b);
```

2) Assignment operators :

* assigning the value to the variables.
* =, +=, -=, *=, /=

Example :

```
a+=5
```

3) comparison operators :

* It is used for compare two values.
* >, <, <=, >=, ==, ===, !=

Example :

```
let a=5 b=10;
console.log(a>b);
```

4) Logical operators:-

* It is used to check conditions:-

* &&, !

Example:-

```
console.log(a>5 && b<10);
```

5) Ternary operator:-

* it is a short form of if else.

Example:-

```
let result = (a>b) ? "A is bigger" : "B is bigger";
console.log(result);
```

4] Print the shipping cost:-

```
let amount = 450;
let shippingCost;
if(amount >500){
    ShippingCost = 0;
    console.log("Free shipping");
}
else{
    shipping cost = amount * 0.02;
    Console.log("shipping cost", shippingCost);
}
```

output:
shipping cost = 9

$\frac{2}{100} = 0.02$

5) factorial using dowhile loop:

```
let n=5;
let fact=1;
do{
  fact = fact*n;
  n--;
}while (n>0);
console.log(fact);
```

output
120

6) Armstrong number using Function:

```
function Arm(num){
    let sum=0;
    let temp=num;
    while (temp>0){
        let digit = temp %10;
        sum = sum+digit * digit*digit;
        temp = (temp-digit)/10;
    }
    if (sum===num){
        consde.log("Armstrong number");
    }
    else{
        console.log("not an Armstrong strong");
    }
}
Arm(153);
```

Output:
Armstrong number

7) Palindrome or not using Function:

```
function palindrome (str){
    let r = "";
for(let i = str.length -1; i>=0; i--){
    r = r + str[i];
}
if (str === r){
    console.log("Palindrome");
}
else{
    console.log("Not a Palindrome");
}
}
palindrome ("APPA");
```

output
Palindrome.

8) Print Fibonacci series:

```
let n = 10;
let a = 0;
let b = 1;
let count = 2;
console.log(a);
console.log(b);
while (count<n){
  let c = a+b;
    Console.log(c);
    a = b;
    b = c;
  count ++;
}
```

output:
0
1
1
2
3
5
8
13
21
34.

9) Prime no series using while loop:-

```
let num = 2;
while (num <= 20) {
    let f = 0;
    for(let i = 2; i < num; i++) {
        if (num % i === 0) {
            f = 1;
            break;
        }
    }
    if (f === 0) {
        console.log(num);
    }
    num ++;
}
```

Output:

2
3
5
7
11
13
17
19

10) Factorial using Recursion:-

```
function fact(n){
    if (n==0){
        return 1;
    }
    else{
        return n* fact(n-1);
    }
console.log(fact(5));
```

Output :-

120.