JavaScript Conditional Statements & Loops – Solutions (With User Input)

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1. Positive or Negative

```
let num = Number(prompt("Enter a number:"));
if (num > 0) console.log("Positive");
else if (num < 0) console.log("Negative");
else console.log("Zero");
```

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2. Largest of Two Numbers

```
let a = Number(prompt("Enter first number:"));
let b = Number(prompt("Enter second number:"));
if (a > b) console.log(a + " is greater");
else console.log(b + " is greater");
```

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3. Largest of Three Numbers

```
let x = Number(prompt("Enter first number:"));
let y = Number(prompt("Enter second number:"));
let z = Number(prompt("Enter third number:"));
if (x > y && x > z) console.log(x + " is largest");
else if (y > x && y > z) console.log(y + " is largest");
else console.log(z + " is largest");
```

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4. Voting Eligibility

```
let age = Number(prompt("Enter your age:"));
if (age >= 18) console.log("Eligible");
else console.log("Not eligible");
```

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5. Even or Odd

```
let n = Number(prompt("Enter a number:"));
if (n % 2 === 0) console.log("Even");
else console.log("Odd");
```

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6. Divisible by 5 and 11

```
let num1 = Number(prompt("Enter a number:"));
if (num1 % 5 === 0 && num1 % 11 === 0) console.log("Divisible");
else console.log("Not divisible");
```

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7. Leap Year

```
let year = Number(prompt("Enter a year:"));
if (year % 400 === 0 || (year % 4 === 0 && year % 100 !== 0)) console.log("Leap Year");
else console.log("Not Leap Year");
```

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8. Character Type

```
let ch = prompt("Enter any character:");
if ((ch >= 'a' && ch <= 'z') || (ch >= 'A' && ch <= 'Z')) console.log("Alphabet");
else if (ch >= '0' && ch <= '9') console.log("Digit");
else console.log("Special Character");
```

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9. Grade Calculator

```
let marks = Number(prompt("Enter marks:"));
if (marks >= 90) console.log("Grade A");
else if (marks >= 80) console.log("Grade B");
else if (marks >= 70) console.log("Grade C");
```

```
else console.log("Fail");
```

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10. Electricity Bill

```
let units = Number(prompt("Enter units:"));
let bill = 0;
if (units <= 100) bill = units * 5;
else if (units <= 200) bill = 100*5 + (units-100)*7;
else if (units <= 300) bill = 100*5 + 100*7 + (units-200)*10;
else bill = 100*5 + 100*7 + 100*10 + (units-300)*12;
console.log("Bill = ■" + bill);
```

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11. Print 1 to 100

```
for (let i = 1; i <= 100; i++) console.log(i);
```

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12. Even Numbers 1–100

```
for (let i = 1; i <= 100; i++) if (i % 2 === 0) console.log(i);
```

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13. Odd Numbers 1–100

```
for (let i = 1; i <= 100; i++) if (i % 2 !== 0) console.log(i);
```

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14. Multiplication Table

```
let num2 = Number(prompt("Enter a number:"));
for (let i = 1; i <= 10; i++) console.log(`${num2} x ${i} = ${num2*i}`);
```

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15. Sum of First N Numbers

```
let sn = Number(prompt("Enter N:"));
let sum = 0;
for (let i = 1; i <= sn; i++) sum += i;
console.log("Sum =", sum);
```

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16. Factorial

```
let fn = Number(prompt("Enter number:"));
let fact = 1;
for (let i = 1; i <= fn; i++) fact *= i;
console.log("Factorial =", fact);
```

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17. Reverse Number

```
let rn = Number(prompt("Enter number:"));
let rev = 0;
while (rn > 0) {
let digit = rn % 10;
rev = rev*10 + digit;
rn = Math.floor(rn/10);
}
console.log("Reversed =", rev);
```

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18. Count Digits

```
let dn = Number(prompt("Enter number:"));
let count = 0;
while (dn > 0) {
dn = Math.floor(dn/10);
count++;
}
console.log("Digits =", count);
```

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19. Divisible by 3 & 5

```
for (let i = 1; i <= 100; i++) if (i % 3 === 0 && i % 5 === 0) console.log(i);
```

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20. Fibonacci Series

```
let terms = Number(prompt("How many terms?"));
let a = 0, b = 1;
console.log(a); console.log(b);
for (let i = 3; i <= terms; i++) {
let c = a + b;
console.log(c);
a = b;
b = c;
}
```

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21. Prime Number

```
let pn = Number(prompt("Enter number:"));
let prime = true;
if (pn <= 1) prime = false;
for (let i = 2; i <= Math.sqrt(pn); i++) {
if (pn % i === 0) { prime = false; break; }
}
console.log(prime ? "Prime" : "Not Prime");
```

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22. Palindrome

```
let pl = Number(prompt("Enter number:"));
let org = pl, r = 0;
```

```
while (pl > 0) {
let d = pl % 10;
r = r*10 + d;
pl = Math.floor(pl/10);
}
console.log(org === r ? "Palindrome" : "Not Palindrome");
```

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23. Sum of Digits

```
let sd = Number(prompt("Enter number:"));
let tsum = 0;
while (sd > 0) {
tsum += sd % 10;
sd = Math.floor(sd/10);
}
console.log("Sum =", tsum);
```

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24. Armstrong Number

```
let an = Number(prompt("Enter number:"));
let org2 = an, asum = 0;
while (an > 0) {
let d = an % 10;
asum += d**3;
an = Math.floor(an/10);
}
console.log(asum === org2 ? "Armstrong" : "Not Armstrong");
```