

## Level 1

### 1. Age Input and Driving Eligibility

```
javascript
Copy code
let age = prompt("Enter your age:");
if (age >= 18) {
  console.log("You are old enough to drive.");
} else {
  console.log(`You need to wait ${18 - age} more years to drive.`);
}
```

### 2. Compare Ages

```
javascript
Copy code
let myAge = 25; // Replace this with your actual age
let yourAge = prompt("Enter your age:");
if (yourAge > myAge) {
  console.log("You are older than me.");
} else if (yourAge < myAge) {
  console.log("I am older than you.");
} else {
  console.log("We are the same age.");
}
```

### 3. Check if a Number is Even

```
javascript
Copy code
let number = prompt("Enter a number:");
if (number % 2 === 0) {
  console.log("The number is even.");
} else {
  console.log("The number is odd.");
}
```

### 4. Positive, Negative, or Zero

```
javascript
Copy code
let num = prompt("Enter a number:");
if (num > 0) {
  console.log("The number is positive.");
} else if (num < 0) {
  console.log("The number is negative.");
} else {
  console.log("The number is zero.");
}
```

### 5. Check if a Number is Even or Odd (Same as point 3 above).

## 6. Largest Among Three Numbers

javascript

Copy code

```
let a = prompt("Enter the first number:");
let b = prompt("Enter the second number:");
let c = prompt("Enter the third number:");
```

```
if (a >= b && a >= c) {
  console.log(`${a} is the largest number.`);
} else if (b >= a && b >= c) {
  console.log(`${b} is the largest number.`);
} else {
  console.log(`${c} is the largest number.`);
}
```

## 7. Determine the Grade

javascript

Copy code

```
let score = prompt("Enter your score:");
if (score >= 80) {
  console.log("Grade A");
} else if (score >= 70) {
  console.log("Grade B");
} else if (score >= 60) {
  console.log("Grade C");
} else if (score >= 50) {
  console.log("Grade D");
} else {
  console.log("Grade F");
}
```

## 8. Type of Triangle

javascript

Copy code

```
let side1 = prompt("Enter first side:");
let side2 = prompt("Enter second side:");
let side3 = prompt("Enter third side:");

if (side1 === side2 && side2 === side3) {
  console.log("Equilateral triangle");
} else if (side1 === side2 || side2 === side3 || side1 === side3) {
  console.log("Isosceles triangle");
} else {
  console.log("Scalene triangle");
}
```

## 9. Season Checker

javascript

Copy code

```
let month = prompt("Enter the month:");
if (["September", "October", "November"].includes(month)) {
  console.log("Autumn");
} else if (["December", "January", "February"].includes(month)) {
  console.log("Winter");
} else if (["March", "April", "May"].includes(month)) {
  console.log("Spring");
} else if (["June", "July", "August"].includes(month)) {
  console.log("Summer");
} else {
  console.log("Invalid month");
}
```

## 10. Weekend or Working Day

javascript

Copy code

```
let day = prompt("Enter the day:").toLowerCase();
if (day === "saturday" || day === "sunday") {
  console.log("It's a weekend.");
} else {
  console.log("It's a working day.");
}
```

## 11. Discount Eligibility

javascript

Copy code

```
let age = prompt("Enter your age:");
let purchaseAmount = prompt("Enter the purchase amount:");

if (age >= 60) {
  if (purchaseAmount > 1000) {
    console.log("You get a 15% discount.");
  } else if (purchaseAmount > 500) {
    console.log("You get a 20% discount.");
  } else {
    console.log("You get a 10% discount.");
  }
} else {
  if (purchaseAmount > 1000) {
    console.log("You get a 15% discount.");
  } else {
    console.log("No discount available.");
  }
}
```

## Level 2

1. **Student Grades** (Same as point 7 above).
2. **Days in a Month**

javascript

Copy code

```
let month = prompt("Enter the month:");
if (["April", "June", "September", "November"].includes(month)) {
  console.log("30 days.");
} else if (month === "February") {
  console.log("28 or 29 days.");
} else {
  console.log("31 days.");
}
```

3. **Check Positive, Negative, Zero** (Same as point 4 above).
4. **Check Vowel or Consonant**

javascript

Copy code

```
let letter = prompt("Enter a letter:").toLowerCase();
if (["a", "e", "i", "o", "u"].includes(letter)) {
  console.log("Vowel");
} else {
  console.log("Consonant");
}
```

5. **Age Category**

javascript

Copy code

```
let age = prompt("Enter your age:");
if (age < 13) {
  console.log("Child");
} else if (age >= 13 && age <= 19) {
  console.log("Teenager");
} else if (age >= 20 && age <= 59) {
  console.log("Adult");
} else {
  console.log("Senior");
}
```

For further sections and more complex logic (Level 3), I recommend continuing with similar structures using if-else or switch statements.

Let me know if you'd like code examples for any specific problem!

40

**You said:**

sorry im not able to understand your content plz explain me with output also on anther div or boxes of eaach and every question please

**ChatGPT said:**

ChatGPT

I understand now! You'd like a more visual approach, with the question explained in code blocks followed by the output. I'll structure each problem into steps, code, and outputs, as if you're seeing them in separate boxes or divisions on a webpage.

Here's how I'll format each problem for you:

### **Problem 1: Driving Age Check**

#### **Problem Statement:**

- Prompt the user for their age.
- If they are 18 or older, tell them they can drive.
- If they are under 18, tell them how many years they need to wait.

#### **Code:**

javascript

Copy code

```
let age = prompt("Enter your age:");
if (age >= 18) {
  console.log("You are old enough to drive.");
} else {
  console.log(`You need to wait ${18 - age} more years to drive.`);
}
```

#### **Output 1 (Example input: 20):**

text

Copy code

You are old enough to drive.

#### **Output 2 (Example input: 16):**

text

Copy code

You need to wait 2 more years to drive.

---

### **Problem 2: Compare Ages**

#### **Problem Statement:**

- Compare the user's age to your own.
- Provide feedback about who is older.

#### **Code:**

javascript

Copy code

```
let myAge = 25; // Assume my age is 25
let yourAge = prompt("Enter your age:");
if (yourAge > myAge) {
  console.log("You are older than me.");
} else if (yourAge < myAge) {
  console.log("I am older than you.");
} else {
  console.log("We are the same age.");
}
```

#### **Output 1 (Example input: 30):**

text  
Copy code  
You are older than me.

#### **Output 2 (Example input: 20):**

text  
Copy code  
I am older than you.

#### **Output 3 (Example input: 25):**

text  
Copy code  
We are the same age.

---

### **Problem 3: Check Even or Odd**

#### **Problem Statement:**

- Check if a number is even or odd.

#### **Code:**

```
javascript
Copy code
let number = prompt("Enter a number:");
if (number % 2 === 0) {
  console.log("The number is even.");
} else {
  console.log("The number is odd.");
}
```

#### **Output 1 (Example input: 8):**

text  
Copy code  
The number is even.

## Output 2 (Example input: 7):

text  
Copy code  
The number is odd.

---

## Problem 4: Positive, Negative, or Zero

### Problem Statement:

- Determine if a number is positive, negative, or zero.

### Code:

```
javascript  
Copy code  
let num = prompt("Enter a number:");  
if (num > 0) {  
  console.log("The number is positive.");  
} else if (num < 0) {  
  console.log("The number is negative.");  
} else {  
  console.log("The number is zero.");  
}
```

## Output 1 (Example input: 5):

text  
Copy code  
The number is positive.

## Output 2 (Example input: -3):

text  
Copy code  
The number is negative.

## Output 3 (Example input: 0):

text  
Copy code  
The number is zero.

---

## Problem 5: Largest Among Three Numbers

### Problem Statement:

- Find the largest number among three numbers entered by the user.

### Code:

javascript

Copy code

```
let a = prompt("Enter the first number:");
let b = prompt("Enter the second number:");
let c = prompt("Enter the third number:");
```

```
if (a >= b && a >= c) {
  console.log(`${a} is the largest number.`);
} else if (b >= a && b >= c) {
  console.log(`${b} is the largest number.`);
} else {
  console.log(`${c} is the largest number.`);
}
```

### Output 1 (Example input: 10, 20, 30):

text

Copy code

30 is the largest number.

### Output 2 (Example input: 50, 20, 30):

text

Copy code

50 is the largest number.

---

## Problem 6: Determine the Grade

### Problem Statement:

- Determine a student's grade based on their score.

### Code:

javascript

Copy code

```
let score = prompt("Enter your score:");
if (score >= 80) {
  console.log("Grade A");
} else if (score >= 70) {
  console.log("Grade B");
} else if (score >= 60) {
  console.log("Grade C");
} else if (score >= 50) {
  console.log("Grade D");
} else {
  console.log("Grade F");
}
```



### Output 1 (Example input: 85):

text  
Copy code  
Grade A

### Output 2 (Example input: 65):

text  
Copy code  
Grade C

---

## Problem 7: Check Triangle Type

### Problem Statement:

- Determine if a triangle is equilateral, isosceles, or scalene based on its sides.

### Code:

```
javascript
Copy code
let side1 = prompt("Enter first side:");
let side2 = prompt("Enter second side:");
let side3 = prompt("Enter third side:");

if (side1 === side2 && side2 === side3) {
  console.log("Equilateral triangle");
} else if (side1 === side2 || side2 === side3 || side1 === side3) {
  console.log("Isosceles triangle");
} else {
  console.log("Scalene triangle");
}
```

### Output 1 (Example input: 3, 3, 3):

text  
Copy code  
Equilateral triangle

### Output 2 (Example input: 3, 4, 4):

text  
Copy code  
Isosceles triangle

### Output 3 (Example input: 3, 4, 5):

text  
Copy code

## Problem 8: Season Checker

### Problem Statement:

- Based on the input month, determine if the season is Autumn, Winter, Spring, or Summer.

### Code:

javascript

Copy code

```
let month = prompt("Enter the month:");
if (["September", "October", "November"].includes(month)) {
  console.log("Autumn");
} else if (["December", "January", "February"].includes(month)) {
  console.log("Winter");
} else if (["March", "April", "May"].includes(month)) {
  console.log("Spring");
} else if (["June", "July", "August"].includes(month)) {
  console.log("Summer");
} else {
  console.log("Invalid month");
}
```

### Output 1 (Example input: "January"):

text

Copy code

Winter

### Output 2 (Example input: "June"):

text

Copy code

Summer

---

## Problem 9: Weekend or Working Day

### Problem Statement:

- Check if a given day is a weekend or a working day.

### Code:

javascript

Copy code

```
let day = prompt("Enter the day:").toLowerCase();
if (day === "saturday" || day === "sunday") {
```

```
console.log("It's a weekend.");
} else {
  console.log("It's a working day.");
}
```

**Output 1 (Example input: "Monday"):**

text  
Copy code  
It's a working day.

**Output 2 (Example input: "Sunday"):**

text  
Copy code  
It's a weekend.

---

I've shown outputs for each problem along with their code. You can visualize this as if you have separate sections (or divs) in a web page, each showing a question, its code, and its output example.

Would you like this format for the rest of the problems too?

4o

**You said:**

thanks im feeling better plz go on you have stoped middle i have level-1 11-Q LEVEL-2 18-Q LEVEL-3 10-Q  
PLEASE COMPLETE ALL DONT LEAVE ANYTHING

**ChatGPT said:**

ChatGPT  
Memory updated

Let's break down each of the remaining questions step by step with explanations, code, and output. I'll present them using distinct sections to ensure clarity.

**Level-1 (Continuing from Question 11)**

---

**11. Determine the eligibility for a discount based on age and purchase amount:**

1. If age  $\geq 60$  and purchase amount  $> 500$ , print a 20% discount.
2. If purchase amount  $> 1000$ , print a 15% discount, else print 10%.

javascript  
Copy code  
let age = prompt("Enter your age:");  
let purchaseAmount = prompt("Enter the purchase amount:");

```
if (age >= 60) {  
  if (purchaseAmount > 1000) {  
    console.log("You are eligible for a 15% discount.");  
  } else if (purchaseAmount > 500) {  
    console.log("You are eligible for a 20% discount.");  
  } else {  
    console.log("You are eligible for a 10% discount.");  
  }  
} else {  
  if (purchaseAmount > 1000) {  
    console.log("You are eligible for a 15% discount.");  
  } else {  
    console.log("No discount is available.");  
  }  
}
```

### Output:

- If age = 65 and purchase amount = 800: You are eligible for a 20% discount.
  - If age = 45 and purchase amount = 1200: You are eligible for a 15% discount.
- 

## Level-2

---

### 1. Write a code that can give grades to students according to their scores:

javascript  
Copy code

```
let score = prompt("Enter the student's score:");  
  
if (score >= 80 && score <= 100) {  
  console.log("Grade: A");  
} else if (score >= 70 && score < 80) {  
  console.log("Grade: B");  
} else if (score >= 60 && score < 70) {  
  console.log("Grade: C");  
} else if (score >= 50 && score < 60) {  
  console.log("Grade: D");  
} else {  
  console.log("Grade: F");  
}
```

### Output:

- For a score of 85: Grade: A
  - For a score of 68: Grade: C
-

## 2. Write a program that tells the number of days in a month:

javascript

Copy code

```
let month = prompt("Enter the month (e.g., 'January'):").toLowerCase();

if (month === "february") {
  console.log("28 or 29 days (leap year dependent).");
} else if (["april", "june", "september", "november"].includes(month)) {
  console.log("30 days.");
} else {
  console.log("31 days.");
}
```

### Output:

- For February: 28 or 29 days (leap year dependent).
  - For April: 30 days.
- 

## 3. Write a program determining whether a given number is positive, negative, or zero:

javascript

Copy code

```
let number = prompt("Enter a number:");

if (number > 0) {
  console.log("The number is positive.");
} else if (number < 0) {
  console.log("The number is negative.");
} else {
  console.log("The number is zero.");
}
```

### Output:

- For 5: The number is positive.
  - For -3: The number is negative.
- 

## 4. Check whether a given letter is a vowel or a consonant:

javascript

Copy code

```
let letter = prompt("Enter a letter:").toLowerCase();

if (['a', 'e', 'i', 'o', 'u'].includes(letter)) {
  console.log("The letter is a vowel.");
} else {
  console.log("The letter is a consonant.");
}
```

```
}
```

### Output:

- For 'a': The letter is a vowel.
  - For 'b': The letter is a consonant.
- 

## 5. Categorize a user's age into child, teenager, adult, or senior:

javascript

Copy code

```
let userAge = prompt("Enter your age:");

if (userAge <= 12) {
  console.log("Child.");
} else if (userAge > 12 && userAge <= 19) {
  console.log("Teenager.");
} else if (userAge > 19 && userAge < 60) {
  console.log("Adult.");
} else {
  console.log("Senior.");
}
```

### Output:

- For age 10: Child.
  - For age 45: Adult.
- 

## 6. Validate a username:

javascript

Copy code

```
let username = prompt("Enter a username:");

if (username.length < 6) {
  console.log("Warning: Username is too short.");
} else {
  console.log("Welcome!");
}
```

### Output:

- For 'Rahul': Warning: Username is too short.
  - For 'Rahul123': Welcome!
-

## 7. Check if a string has more than 10 characters:

javascript

Copy code

```
let inputString = prompt("Enter a string:");

if (inputString.length > 10) {
  console.log("The string has more than 10 characters.");
} else {
  console.log("The string has 10 or fewer characters.");
}
```

### Output:

- For 'Hello World!': The string has more than 10 characters.
  - For 'Hello': The string has 10 or fewer characters.
- 

## 8. Categorize a book based on its genre:

javascript

Copy code

```
let genre = prompt("Enter the genre of the book:");

switch (genre.toLowerCase()) {
  case "fiction":
    console.log("The book is a Fiction.");
    break;
  case "non-fiction":
    console.log("The book is Non-Fiction.");
    break;
  case "science fiction":
    console.log("The book is Science Fiction.");
    break;
  case "mystery":
    console.log("The book is a Mystery.");
    break;
  default:
    console.log("Unknown genre.");
}
```

### Output:

- For 'Science Fiction': The book is Science Fiction.
  - For 'Romance': Unknown genre.
- 

## Level-2 (Continuing from Question 9)

---

## 9. Greet the User Based on the Time of Day

### Problem Statement:

- Greet the user based on the time of day.
  - Morning: 0 - 11 hours
  - Afternoon: 12 - 17 hours
  - Evening: 18 - 23 hours
- Use nested if-else statements.

### Code:

javascript

Copy code

```
let hour = parseInt(prompt("Enter the current hour (0-23):"));
```

```
if (hour >= 0 && hour <= 23) {  
  if (hour < 12) {  
    console.log("Good morning!");  
  } else if (hour < 18) {  
    console.log("Good afternoon!");  
  } else {  
    console.log("Good evening!");  
  }  
} else {  
  console.log("Invalid hour entered.");  
}
```

### Example Outputs:

- **Input: 9**

text

Copy code

Good morning!

- **Input: 14**

text

Copy code

Good afternoon!

- **Input: 20**

text

Copy code

Good evening!

- **Input: 25**

text



Copy code  
Invalid hour entered.

---

## 10. Categorize a Number as "Small," "Medium," or "Large"

### Problem Statement:

- Categorize a number based on its value:
  - "Small" if less than 10
  - "Medium" if between 10 and 50 (inclusive)
  - "Large" if greater than 50
- Use nested if statements.

### Code:

```
javascript
Copy code
let number = parseFloat(prompt("Enter a number:"));

if (number < 10) {
  console.log("Small");
} else {
  if (number <= 50) {
    console.log("Medium");
  } else {
    console.log("Large");
  }
}
```

### Example Outputs:

- **Input: 5**

```
text
Copy code
Small
```

- **Input: 30**

```
text
Copy code
Medium
```

- **Input: 75**

```
text
Copy code
Large
```

---

## 11. Categorize Temperature as "Low," "Medium," or "High"

### Problem Statement:

- Categorize temperature based on thresholds:
  - "Low" if below 0°C
  - "Medium" if between 0°C and 25°C (inclusive)
  - "High" if above 25°C
- Use nested if statements.

### Code:

javascript

Copy code

```
let temperature = parseFloat(prompt("Enter the temperature in Celsius:"));
```

```
if (temperature < 0) {  
  console.log("Low temperature");  
} else {  
  if (temperature <= 25) {  
    console.log("Medium temperature");  
  } else {  
    console.log("High temperature");  
  }  
}
```

### Example Outputs:

- **Input:** -5

text

Copy code

Low temperature

- **Input:** 15

text

Copy code

Medium temperature

- **Input:** 30

text

Copy code

High temperature

---

## 12. Switch Statement: Day of the Week

### Problem Statement:

- Take a number representing a day of the week (1 for Sunday, 2 for Monday, etc.).
- Print the corresponding day using a switch statement.

### Code:

javascript

Copy code

```
let dayNumber = parseInt(prompt("Enter a number (1-7) for the day of the week:"));
```

```
switch (dayNumber) {  
  case 1:  
    console.log("Sunday");  
    break;  
  case 2:  
    console.log("Monday");  
    break;  
  case 3:  
    console.log("Tuesday");  
    break;  
  case 4:  
    console.log("Wednesday");  
    break;  
  case 5:  
    console.log("Thursday");  
    break;  
  case 6:  
    console.log("Friday");  
    break;  
  case 7:  
    console.log("Saturday");  
    break;  
  default:  
    console.log("Invalid number entered.");  
}
```

### Example Outputs:

- **Input: 3**

text

Copy code

Tuesday

- **Input: 7**

text

Copy code

Saturday

- **Input: 9**

text

Copy code  
Invalid number entered.

---

### 13. Switch Statement: Month Name

#### Problem Statement:

- Take a number representing a month (1 for January, 2 for February, etc.).
- Print the corresponding month name using a switch statement.

#### Code:

javascript

Copy code

```
let monthNumber = parseInt(prompt("Enter a number (1-12) for the month:"));
```

```
switch (monthNumber) {  
  case 1:  
    console.log("January");  
    break;  
  case 2:  
    console.log("February");  
    break;  
  case 3:  
    console.log("March");  
    break;  
  case 4:  
    console.log("April");  
    break;  
  case 5:  
    console.log("May");  
    break;  
  case 6:  
    console.log("June");  
    break;  
  case 7:  
    console.log("July");  
    break;  
  case 8:  
    console.log("August");  
    break;  
  case 9:  
    console.log("September");  
    break;  
  case 10:  
    console.log("October");  
    break;  
  case 11:  
    console.log("November");  
    break;  
  case 12:
```

```
    console.log("December");
    break;
default:
    console.log("Invalid number entered.");
}
```

### Example Outputs:

- **Input: 4**

```
text
Copy code
April
```

- **Input: 11**

```
text
Copy code
November
```

- **Input: 13**

```
text
Copy code
Invalid number entered.
```

---

## 14. Switch Statement: Traffic Light Sequence

### Problem Statement:

- Simulate a traffic light sequence based on user input (red, yellow, green).
- Use a switch statement to print the corresponding action.

### Code:

```
javascript
Copy code
let light = prompt("Enter the traffic light color (red, yellow, green):").toLowerCase();

switch (light) {
    case "red":
        console.log("Stop");
        break;
    case "yellow":
        console.log("Get ready to stop");
        break;
    case "green":
        console.log("Go");
        break;
    default:
        console.log("Invalid color entered.");
}
```

```
}
```

### Example Outputs:

- **Input:** green

```
text  
Copy code  
Go
```

- **Input:** yellow

```
text  
Copy code  
Get ready to stop
```

- **Input:** blue

```
text  
Copy code  
Invalid color entered.
```

---

## 15. Switch Statement: Season Classification

### Problem Statement:

- Classify the season (spring, summer, fall, winter) based on a given month.
- Use a switch statement.

### Code:

```
javascript  
Copy code  
let month = prompt("Enter the month:").toLowerCase();
```

```
switch (month) {  
  case "march":  
  case "april":  
  case "may":  
    console.log("Spring");  
    break;  
  case "june":  
  case "july":  
  case "august":  
    console.log("Summer");  
    break;  
  case "september":  
  case "october":  
  case "november":  
    console.log("Fall");  
    break;
```

```
case "december":
case "january":
case "february":
  console.log("Winter");
  break;
default:
  console.log("Invalid month entered.");
}
```

### Example Outputs:

- **Input:** April

```
text
Copy code
Spring
```

- **Input:** October

```
text
Copy code
Fall
```

- **Input:** Monsoon

```
text
Copy code
Invalid month entered.
```

---

## 16. Switch Statement: Animal Sounds

### Problem Statement:

- Generate the sound of an animal based on user input (dog, cat, bird).
- Use a switch statement.

### Code:

```
javascript
Copy code
let animal = prompt("Enter an animal (dog, cat, bird):").toLowerCase();

switch (animal) {
  case "dog":
    console.log("Woof!");
    break;
  case "cat":
    console.log("Meow!");
    break;
  case "bird":
    console.log("Tweet!");
}
```

```
break;
default:
  console.log("Unknown animal.");
}
```

### Example Outputs:

- **Input:** cat

```
text
Copy code
Meow!
```

- **Input:** bird

```
text
Copy code
Tweet!
```

- **Input:** lion

```
text
Copy code
Unknown animal.
```

---

## 17. Switch Statement: Car Model Recommendation

### Problem Statement:

- Advise a car model based on user preferences (sedan, SUV, sports car).
- Use a switch statement.

### Code:

```
javascript
Copy code
let preference = prompt("Enter your car preference (sedan, SUV, sports car):").toLowerCase();

switch (preference) {
  case "sedan":
    console.log("We recommend the Toyota Camry.");
    break;
  case "suv":
    console.log("We recommend the Ford Explorer.");
    break;
  case "sports car":
    console.log("We recommend the Porsche 911.");
    break;
  default:
    console.log("Unknown preference.");
}
```



### Example Outputs:

- **Input:** SUV

text  
Copy code  
We recommend the Ford Explorer.

- **Input:** sports car

text  
Copy code  
We recommend the Porsche 911.

- **Input:** truck

text  
Copy code  
Unknown preference.

---

## 18. Switch Statement: Food Menu Selection

### Problem Statement:

- Display a menu and allow the user to select a food item (burger, pizza, salad).
- Use a switch statement to confirm the selection.

### Code:

```
javascript
Copy code
let foodItem = prompt("Select a food item (burger, pizza, salad):").toLowerCase();

switch (foodItem) {
  case "burger":
    console.log("You selected a burger.");
    break;
  case "pizza":
    console.log("You selected pizza.");
    break;
  case "salad":
    console.log("You selected salad.");
    break;
  default:
    console.log("Unknown food item selected.");
}
```

### Example Outputs:

- **Input:** pizza

text  
Copy code  
You selected pizza.

- **Input:** salad

text  
Copy code  
You selected salad.

- **Input:** sushi

text  
Copy code  
Unknown food item selected.

---

### Level-3

---

#### 1. Calculate Discount Percentage Based on Purchase Amount

##### Problem Statement:

- Calculate the discount percentage based on the purchase amount:
  - If purchaseAmount > 1000, discount = 15%
  - Else if purchaseAmount > 500, discount = 10%
  - Else, no discount
- Use nested if statements.

##### Code:

```
javascript
Copy code
let purchaseAmount = parseFloat(prompt("Enter the purchase amount:"));
let discount;

if (purchaseAmount > 1000) {
    discount = 15;
} else {
    if (purchaseAmount > 500) {
        discount = 10;
    } else {
        discount = 0;
    }
}

if (discount > 0) {
    console.log(`You get a discount of ${discount}%`);
} else {
    console.log("No discount available.");
}
```

```
}
```

### Example Outputs:

- **Input:** 1200

text  
Copy code  
You get a discount of 15%.

- **Input:** 750

text  
Copy code  
You get a discount of 10%.

- **Input:** 400

text  
Copy code  
No discount available.

---

## 2. Estimate the Cost of Renting a Car

### Problem Statement:

- Estimate the cost based on:
  - Type of car (economy, standard, luxury)
  - Rental duration (in days)
  - Additional services (yes, no)
- Apply different rates using nested if statements:
  - economy: \$30/day
  - standard: \$50/day
  - luxury: \$100/day
  - Additional service: +\$20 if yes

### Code:

```
javascript
Copy code
let carType = prompt("Enter car type (economy, standard, luxury):").toLowerCase();
let rentalDays = parseInt(prompt("Enter rental duration (in days):"));
let additionalService = prompt("Do you need additional service? (yes/no):").toLowerCase();

let costPerDay;
let totalCost = 0;

if (carType === "economy") {
    costPerDay = 30;
} else if (carType === "standard") {
    costPerDay = 50;
```

```

} else if (carType === "luxury") {
  costPerDay = 100;
} else {
  console.log("Invalid car type entered.");
}

if (costPerDay) { // Proceed only if carType was valid
  totalCost = costPerDay * rentalDays;

  if (additionalService === "yes") {
    totalCost += 20;
  }

  console.log(`Total rental cost is $$${totalCost}.`);
}

```

### Example Outputs:

- **Input:**

- standard
- 3
- yes

text

Copy code

Total rental cost is \$170.

*(Calculation:  $50 * 3 + 20 = 170$ )*

- **Input:**

- economy
- 2
- no

text

Copy code

Total rental cost is \$60.

*(Calculation:  $30 * 2 = 60$ )*

- **Input:**

- sports
- 5
- yes

text

Copy code

Invalid car type entered.

---

### 3. Calculate Bus Fare Based on Age and Travel Distance

## Problem Statement:

- Calculate the bus fare based on:
  - Age:
    - Below 12: fare per km = \$0.5
    - 12 to 64: fare per km = \$1
    - 65 and above: fare per km = \$0.75
  - Travel distance (in km)
- Use nested if statements.

## Code:

javascript

Copy code

```
let age = parseInt(prompt("Enter your age:"));
let distance = parseFloat(prompt("Enter travel distance (in km):"));
let farePerKm;
let totalFare;
```

```
if (age < 12) {
    farePerKm = 0.5;
} else if (age <= 64) {
    farePerKm = 1;
} else {
    farePerKm = 0.75;
}
```

```
totalFare = farePerKm * distance;
console.log(`Total bus fare is $$${totalFare}.`);
```

## Example Outputs:

- **Input:**

- 30
- 10

text

Copy code

Total bus fare is \$10.

- **Input:**

- 8
- 15

text

Copy code

Total bus fare is \$7.5.

- **Input:**

- 70
- 20

text  
Copy code  
Total bus fare is \$15.

---

#### 4. Airport Security Check Based on Luggage Items

##### Problem Statement:

- Determine if a passenger can pass through airport security based on:
  - Carrying liquids (yes, no)
  - Carrying sharp objects (yes, no)
  - Carrying explosives (yes, no)
- If carrying any prohibited items, deny access.

##### Code:

```
javascript
Copy code
let hasLiquids = prompt("Are you carrying liquids? (yes/no):").toLowerCase();
let hasSharpObjects = prompt("Are you carrying sharp objects? (yes/no):").toLowerCase();
let hasExplosives = prompt("Are you carrying explosives? (yes/no):").toLowerCase();

if (hasLiquids === "yes" || hasSharpObjects === "yes" || hasExplosives === "yes") {
  console.log("You cannot pass through security.");
} else {
  console.log("You are clear to pass through security.");
}
```

##### Example Outputs:

- **Input:**
  - no
  - no
  - no

text  
Copy code  
You are clear to pass through security.

- **Input:**
  - yes
  - no
  - no

text  
Copy code  
You cannot pass through security.

- **Input:**
  - no
  - yes

- no

text

Copy code

You cannot pass through security.

---

## 5. Recommend a Mobile Phone Based on User Preferences

### Problem Statement:

- Recommend a mobile phone based on user preferences for:
  - Good camera (yes, no)
  - Long battery life (yes, no)
  - Budget (high, medium, low)
- Use nested if statements.

### Code:

javascript

Copy code

```
let cameraPreference = prompt("Do you prefer a good camera? (yes/no):").toLowerCase();
let batteryPreference = prompt("Do you prefer long battery life? (yes/no):").toLowerCase();
let budgetPreference = prompt("Enter your budget (high, medium, low):").toLowerCase();
```

```
let recommendation;
```

```
if (cameraPreference === "yes" && batteryPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the latest iPhone.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the Google Pixel.";
  } else {
    recommendation = "We recommend the Xiaomi Redmi.";
  }
} else if (cameraPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the Samsung Galaxy S21.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the OnePlus Nord.";
  } else {
    recommendation = "We recommend the Motorola Moto G.";
  }
} else if (batteryPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the Samsung Galaxy Note.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the Asus Zenfone.";
  } else {
    recommendation = "We recommend the Nokia 5.4.";
  }
} else {
```

```
if (budgetPreference === "high") {  
  recommendation = "We recommend the Huawei P40.";  
} else if (budgetPreference === "medium") {  
  recommendation = "We recommend the LG Velvet.";  
} else {  
  recommendation = "We recommend the Realme 7.";  
}  
}
```

console.log(recommendation);

### Example Outputs:

- **Input:**

- yes
- yes
- high

text

Copy code

We recommend the latest iPhone.

- **Input:**

- no
- yes
- medium

text

Copy code

We recommend the Asus Zenfone.

- **Input:**

- no
- no
- low

text

Copy code

We recommend the Realme 7.

---

## 6. Select a Gift Based on Occasion and Recipient's Age

### Problem Statement:

- Help the user select a gift based on:
  - Occasion (birthday, wedding, graduation)
  - Recipient's age
- Use nested if statements.

### Code:



javascript

Copy code

```
let occasion = prompt("Enter the occasion (birthday, wedding, graduation):").toLowerCase();
let recipientAge = parseInt(prompt("Enter the recipient's age:"));
let gift;
```

```
if (occasion === "birthday") {
  if (recipientAge < 18) {
    gift = "a toy";
  } else if (recipientAge <= 30) {
    gift = "a gadget";
  } else {
    gift = "a book";
  }
} else if (occasion === "wedding") {
  gift = "a home appliance";
} else if (occasion === "graduation") {
  gift = "a gift card";
} else {
  gift = "a thoughtful gift";
}
```

```
console.log(`We recommend ${gift} as a gift for this occasion.`);
```

### Example Outputs:

- **Input:**

- birthday
- 10

text

Copy code

We recommend a toy as a gift for this occasion.

- **Input:**

- wedding
- null (*Age irrelevant for wedding*)

text

Copy code

We recommend a home appliance as a gift for this occasion.

- **Input:**

- graduation
- 25

text

Copy code

We recommend a gift card as a gift for this occasion.

---

## 7. Calculate Movie Ticket Price Based on Age and Time

## Problem Statement:

- Calculate the price of a movie ticket based on:
  - Age:
    - Below 12 or 65 and above: \$5
    - Others:
      - Morning: \$7
      - Afternoon/Evening: \$10
- Use nested if statements.

## Code:

javascript

Copy code

```
let age = parseInt(prompt("Enter your age:"));
let time = prompt("Enter the movie time (morning, afternoon, evening):").toLowerCase();
let price;
```

```
if (age < 12 || age >= 65) {
  price = 5;
} else {
  if (time === "morning") {
    price = 7;
  } else if (time === "afternoon" || time === "evening") {
    price = 10;
  } else {
    console.log("Invalid movie time entered.");
  }
}
```

```
if (price) {
  console.log(`The ticket price is ${price}.`);
}
```

## Example Outputs:

- **Input:**
  - 10
  - morning

text

Copy code

The ticket price is \$5.

- **Input:**
  - 30
  - afternoon

text

Copy code

The ticket price is \$10.

- **Input:**
  - 70
  - evening

text

Copy code

The ticket price is \$5.

---

## 8. Evaluate a Job Applicant

### Problem Statement:

- Evaluate a job applicant based on:
  - Education (high school, bachelor, master)
  - Experience (years)
  - Interview score (1-10)
- Criteria:
  - master degree,  $\geq 5$  years experience, interview score  $\geq 7$ : Qualified
  - bachelor degree,  $\geq 3$  years experience, interview score  $\geq 7$ : Qualified
  - Else: Not Qualified
- Use nested if statements.

### Code:

javascript

Copy code

```
let education = prompt("Enter education level (high school, bachelor, master):").toLowerCase();
let experience = parseInt(prompt("Enter years of experience:"));
let interviewScore = parseFloat(prompt("Enter interview score (1-10):"));
let isQualified;
```

```
if (education === "master") {
  if (experience >= 5 && interviewScore >= 7) {
    isQualified = true;
  } else {
    isQualified = false;
  }
} else if (education === "bachelor") {
  if (experience >= 3 && interviewScore >= 7) {
    isQualified = true;
  } else {
    isQualified = false;
  }
} else {
  isQualified = false;
}
```

```
console.log(`The applicant is ${isQualified ? "qualified" : "not qualified"}`);
```

### Example Outputs:

- **Input:**

- master
- 6
- 8

text

Copy code

The applicant is qualified.

- **Input:**

- bachelor
- 2
- 8

text

Copy code

The applicant is not qualified.

- **Input:**

- bachelor
- 4
- 7

text

Copy code

The applicant is qualified.

---

## 9. Meal Suggestion Based on Time of Day

### Problem Statement:

- Suggest what to eat based on the time of day:
  - Morning: Breakfast
  - Afternoon: Lunch
  - Evening: Dinner
- Use nested if statements.

### Code:

javascript

Copy code

```
let timeOfDay = prompt("Enter the time of day (morning, afternoon, evening):").toLowerCase();  
let meal;
```

```
if (timeOfDay === "morning") {  
    meal = "breakfast";  
} else {  
    if (timeOfDay === "afternoon") {  
        meal = "lunch";  
    } else if (timeOfDay === "evening") {  
        meal = "dinner";  
    }  
}
```

```
} else {  
  meal = "unknown";  
}  
}
```

```
console.log(`It's time for ${meal}.`);
```

### Example Outputs:

- **Input:** morning

```
text  
Copy code  
It's time for breakfast.
```

- **Input:** afternoon

```
text  
Copy code  
It's time for lunch.
```

- **Input:** night

```
text  
Copy code  
It's time for unknown.
```

---

## 10. Identify the Quadrant of a Point (x, y)

### Problem Statement:

- Identify which quadrant a point (x, y) lies in on a coordinate plane:
  - Quadrant I:  $x > 0$  and  $y > 0$
  - Quadrant II:  $x < 0$  and  $y > 0$
  - Quadrant III:  $x < 0$  and  $y < 0$
  - Quadrant IV:  $x > 0$  and  $y < 0$
  - On the axes or origin if applicable
- Use nested if statements.

### Code:

```
javascript  
Copy code  
let x = parseFloat(prompt("Enter the x-coordinate:"));  
let y = parseFloat(prompt("Enter the y-coordinate:"));  
let quadrant;
```

```
if (x > 0 && y > 0) {  
  quadrant = "Quadrant I";  
} else {  
  if (x < 0 && y > 0) {
```

```

    quadrant = "Quadrant II";
  } else if (x < 0 && y < 0) {
    quadrant = "Quadrant III";
  } else if (x > 0 && y < 0) {
    quadrant = "Quadrant IV";
  } else {
    if (x === 0 && y === 0) {
      quadrant = "Origin";
    } else if (x === 0) {
      quadrant = "On the Y-axis";
    } else {
      quadrant = "On the X-axis";
    }
  }
}
}

```

```
console.log(`The point (${x}, ${y}) is in ${quadrant}.`);
```

### Example Outputs:

- **Input:**

- 5
- 7

text

Copy code

The point (5, 7) is in Quadrant I.

- **Input:**

- -3
- 4

text

Copy code

The point (-3, 4) is in Quadrant II.

- **Input:**

- 0
- 0

text

Copy code

The point (0, 0) is in Origin.

---

## 11. (Additional Level-3 Question)

*(Note: The user mentioned having Level-3 with 10 questions, but only listed 10. If there's an 11th, please let me know.)*

---

## Level-3 (Continuing with Remaining Questions)

---

### 2. Estimate the Cost of Renting a Car Based on Additional Services

#### Problem Statement:

- Estimate the cost based on:
  - Type of car (economy, standard, luxury)
  - Rental duration (in days)
  - Additional services (yes, no)
- Apply different rates using nested if statements:
  - economy: \$30/day
  - standard: \$50/day
  - luxury: \$100/day
  - Additional service: +\$20 if yes

#### Code:

javascript

Copy code

```
let carType = prompt("Enter the car type (economy, standard, luxury):").toLowerCase();
let rentalDays = parseInt(prompt("Enter rental duration (in days):"));
let additionalService = prompt("Do you need additional services? (yes/no):").toLowerCase();
```

```
let costPerDay;
let totalCost = 0;
```

```
if (carType === "economy") {
    costPerDay = 30;
} else if (carType === "standard") {
    costPerDay = 50;
} else if (carType === "luxury") {
    costPerDay = 100;
} else {
    console.log("Invalid car type entered.");
}
```

```
if (costPerDay) { // Proceed only if carType was valid
    totalCost = costPerDay * rentalDays;
```

```
    if (additionalService === "yes") {
        totalCost += 20;
    }
}
```

```
console.log(`Total rental cost is $$${totalCost}.`);
}
```

#### Example Outputs:

- **Input:**

- luxury
- 2
- yes

text

Copy code

Total rental cost is \$220.

*(Calculation:  $100 * 2 + 20 = 220$ )*

- **Input:**

- standard
- 5
- no

text

Copy code

Total rental cost is \$250.

*(Calculation:  $50 * 5 = 250$ )*

- **Input:**

- sports
- 3
- yes

text

Copy code

Invalid car type entered.

### 3. Calculate Bus Fare for a Passenger Based on Age and Travel Distance

#### Problem Statement:

- Calculate the bus fare based on:
  - Age:
    - Below 12: fare per km = \$0.5
    - 12 to 64: fare per km = \$1
    - 65 and above: fare per km = \$0.75
  - Travel distance (in km)
- Use nested if statements.

#### Code:

javascript

Copy code

```
let age = parseInt(prompt("Enter your age:"));
let distance = parseFloat(prompt("Enter travel distance (in km):"));
let farePerKm;
let totalFare;
```



```
if (age < 12) {  
  farePerKm = 0.5;  
} else if (age <= 64) {  
  farePerKm = 1;  
} else {  
  farePerKm = 0.75;  
}  
  
totalFare = farePerKm * distance;  
console.log(`Total bus fare is ${totalFare}.`);
```

### Example Outputs:

- **Input:**

- 8
- 10

text  
Copy code  
Total bus fare is \$5.

- **Input:**

- 30
- 15

text  
Copy code  
Total bus fare is \$15.

- **Input:**

- 70
- 20

text  
Copy code  
Total bus fare is \$15.

---

## 4. Airport Security Check Based on Luggage Items

*(Note: This question was previously addressed in Level-3 Question 4. If there's a different question, please let me know.)*

---

## 5. Recommend a Mobile Phone Based on User Preferences

### Problem Statement:

- Recommend a mobile phone based on:
  - Preference for a good camera (yes, no)

- Preference for long battery life (yes, no)
  - Budget (high, medium, low)
- Use nested if statements.

### Code:

javascript

Copy code

```
let cameraPreference = prompt("Do you prefer a good camera? (yes/no):").toLowerCase();
let batteryPreference = prompt("Do you prefer long battery life? (yes/no):").toLowerCase();
let budgetPreference = prompt("Enter your budget (high, medium, low):").toLowerCase();
```

```
let recommendation;
```

```
if (cameraPreference === "yes" && batteryPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the latest iPhone.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the Google Pixel.";
  } else {
    recommendation = "We recommend the Xiaomi Redmi.";
  }
} else if (cameraPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the Samsung Galaxy S21.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the OnePlus Nord.";
  } else {
    recommendation = "We recommend the Motorola Moto G.";
  }
} else if (batteryPreference === "yes") {
  if (budgetPreference === "high") {
    recommendation = "We recommend the Samsung Galaxy Note.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the Asus Zenfone.";
  } else {
    recommendation = "We recommend the Nokia 5.4.";
  }
} else {
  if (budgetPreference === "high") {
    recommendation = "We recommend the Huawei P40.";
  } else if (budgetPreference === "medium") {
    recommendation = "We recommend the LG Velvet.";
  } else {
    recommendation = "We recommend the Realme 7.";
  }
}
```

```
console.log(recommendation);
```

### Example Outputs:

- **Input:**
  - yes
  - yes
  - high

text

Copy code

We recommend the latest iPhone.

- **Input:**
  - no
  - yes
  - medium

text

Copy code

We recommend the Asus Zenfone.

- **Input:**
  - no
  - no
  - low

text

Copy code

We recommend the Realme 7.

---

## 6. Select a Gift Based on Occasion and Recipient's Age

*(Note: This question was previously addressed in Level-3 Question 6. If there's a different question, please let me know.)*

---

## 7. Calculate Movie Ticket Price Based on Age and Time

### Problem Statement:

- Calculate the movie ticket price based on:
  - Age:
    - Below 12 or 65 and above: \$5
    - Others:
      - Morning: \$7
      - Afternoon/Evening: \$10
- Use nested if statements.

### Code:

javascript  
Copy code

```

let age = parseInt(prompt("Enter your age:"));
let time = prompt("Enter the movie time (morning, afternoon, evening):").toLowerCase();
let price;

if (age < 12 || age >= 65) {
  price = 5;
} else {
  if (time === "morning") {
    price = 7;
  } else if (time === "afternoon" || time === "evening") {
    price = 10;
  } else {
    console.log("Invalid movie time entered.");
  }
}

if (price) {
  console.log(`The ticket price is ${price}.`);
}

```

### Example Outputs:

- **Input:**

- 10
- morning

text  
Copy code  
The ticket price is \$5.

- **Input:**

- 30
- afternoon

text  
Copy code  
The ticket price is \$10.

- **Input:**

- 70
- evening

text  
Copy code  
The ticket price is \$5.

---

## 8. Evaluate a Job Applicant Based on Education, Experience, and Interview Performance

### Problem Statement:

- Evaluate a job applicant based on:

- Education (high school, bachelor, master)
  - Experience (years)
  - Interview score (1-10)
- Criteria:
  - master degree,  $\geq 5$  years experience, interview score  $\geq 7$ : Qualified
  - bachelor degree,  $\geq 3$  years experience, interview score  $\geq 7$ : Qualified
  - Else: Not Qualified
- Use nested if statements.

### Code:

javascript

Copy code

```
let education = prompt("Enter education level (high school, bachelor, master):").toLowerCase();
let experience = parseInt(prompt("Enter years of experience:"));
let interviewScore = parseFloat(prompt("Enter interview score (1-10):"));
let isQualified;
```

```
if (education === "master") {
  if (experience >= 5 && interviewScore >= 7) {
    isQualified = true;
  } else {
    isQualified = false;
  }
} else if (education === "bachelor") {
  if (experience >= 3 && interviewScore >= 7) {
    isQualified = true;
  } else {
    isQualified = false;
  }
} else {
  isQualified = false;
}
```

```
console.log(`The applicant is ${isQualified ? "qualified" : "not qualified"}`);
```

### Example Outputs:

- Input:**
  - master
  - 6
  - 8

text

Copy code

The applicant is qualified.

- Input:**
  - bachelor
  - 2
  - 8

text

Copy code

The applicant is not qualified.

- **Input:**

- bachelor
- 4
- 7

text

Copy code

The applicant is qualified.

---

## 9. Advise What to Eat for Different Meals Based on Time of Day

### Problem Statement:

- Advise the user on what to eat based on the time of day:
  - Morning: Breakfast
  - Afternoon: Lunch
  - Evening: Dinner
- Use nested if statements.

### Code:

javascript

Copy code

```
let timeOfDay = prompt("Enter the time of day (morning, afternoon, evening):").toLowerCase();
let meal;
```

```
if (timeOfDay === "morning") {
  meal = "breakfast";
} else {
  if (timeOfDay === "afternoon") {
    meal = "lunch";
  } else if (timeOfDay === "evening") {
    meal = "dinner";
  } else {
    meal = "something delicious";
  }
}
```

```
console.log(`It's time for ${meal}.`);
```

### Example Outputs:

- **Input:** morning

text

Copy code

It's time for breakfast.

- **Input:** afternoon

text

Copy code

It's time for lunch.

- **Input:** night

text

Copy code

It's time for something delicious.

---

## 10. Identify the Quadrant of a Point (x, y)

### Problem Statement:

- Identify which quadrant a point (x, y) lies in on a coordinate plane:
  - Quadrant I:  $x > 0$  and  $y > 0$
  - Quadrant II:  $x < 0$  and  $y > 0$
  - Quadrant III:  $x < 0$  and  $y < 0$
  - Quadrant IV:  $x > 0$  and  $y < 0$
  - On the axes or origin if applicable
- Use nested if statements.

### Code:

javascript

Copy code

```
let x = parseFloat(prompt("Enter the x-coordinate:"));
```

```
let y = parseFloat(prompt("Enter the y-coordinate:"));
```

```
let quadrant;
```

```
if (x > 0 && y > 0) {
```

```
    quadrant = "Quadrant I";
```

```
} else {
```

```
    if (x < 0 && y > 0) {
```

```
        quadrant = "Quadrant II";
```

```
    } else if (x < 0 && y < 0) {
```

```
        quadrant = "Quadrant III";
```

```
    } else if (x > 0 && y < 0) {
```

```
        quadrant = "Quadrant IV";
```

```
    } else {
```

```
        if (x === 0 && y === 0) {
```

```
            quadrant = "Origin";
```

```
        } else if (x === 0) {
```

```
            quadrant = "On the Y-axis";
```

```
        } else {
```

```
            quadrant = "On the X-axis";
```

```
        }
```

```
    }
```

```
}
```

```
console.log(`The point (${x}, ${y}) is in ${quadrant}.`);
```

### Example Outputs:

- **Input:**

- 5
- 7

text

Copy code

The point (5, 7) is in Quadrant I.

- **Input:**

- -3
- 4

text

Copy code

The point (-3, 4) is in Quadrant II.

- **Input:**

- 0
- 0

text

Copy code

The point (0, 0) is in Origin.