

DEBUGGING QUESTIONS:

```
1. for (let i = 0; i < customers.length; i++) {  
    console.log(customers[i].name);  
}
```

Explanation:

The error lied in i value equal to which made the loop to run one extra time.

```
2. const activeCustomers = customers.filter(c => c.active === true);
```

Explanation:

The error lied in not returning the condition inside filter(), so it always returned undefined.

```
3. const updatedPremiums = customers.map(c => {  
    if (c.age >= 50) {  
        return { ...c, premium: c.premium * 1.1 };  
    }  
    return c;});
```

Explanation:

The error lied in not returning a value from map() and directly modifying the original object.

```
4. const totalPremium = customers.reduce((total, c) => {  
    return total + c.premium;  
}, 0);
```

Explanation:

The error lied in not returning the accumulated value inside the reduce() function.

```
5. console.log(`Customer ${customers[0].name} has policy ${customers[0].policy}`);
```

Explanation:

The error lied in using double quotes instead of backticks for template literals.

```
6. const policyCount = customers.reduce((count, c) => {
```

```
count[c.policy] = (count[c.policy] || 0) + 1;  
return count;  
}, {});
```

Explanation:

The error lied in using a fixed key instead of a dynamic object key.

```
7. const customersWithRisk = customers.map(c => {  
  let riskLevel;  
  if (c.age < 35) riskLevel = "Low";  
  else if (c.age <= 50) riskLevel = "Medium";  
  else riskLevel = "High";  
  return { ...c, riskLevel };  
});
```

Explanation:

The error lied in overlapping conditions which caused the risk value to be overwritten.

```
8. let active = 0, inactive = 0;  
for (const c of customers) {  
  if (c.active) active++;  
  else inactive++;  
}
```

Explanation:

The error lied in using for...in which iterates over indexes instead of objects.

```
9. const getLifeCustomers = () =>  
  customers.filter(c => c.policy === "Life").map(c => c.name);
```

Explanation:

The error lied in incorrect arrow function return formatting.

```
10. const sortedCustomers = [...customers].sort((a, b) => b.premium - a.premium);
```

Explanation:

The error lied in using `sort()` directly which modified the original array.