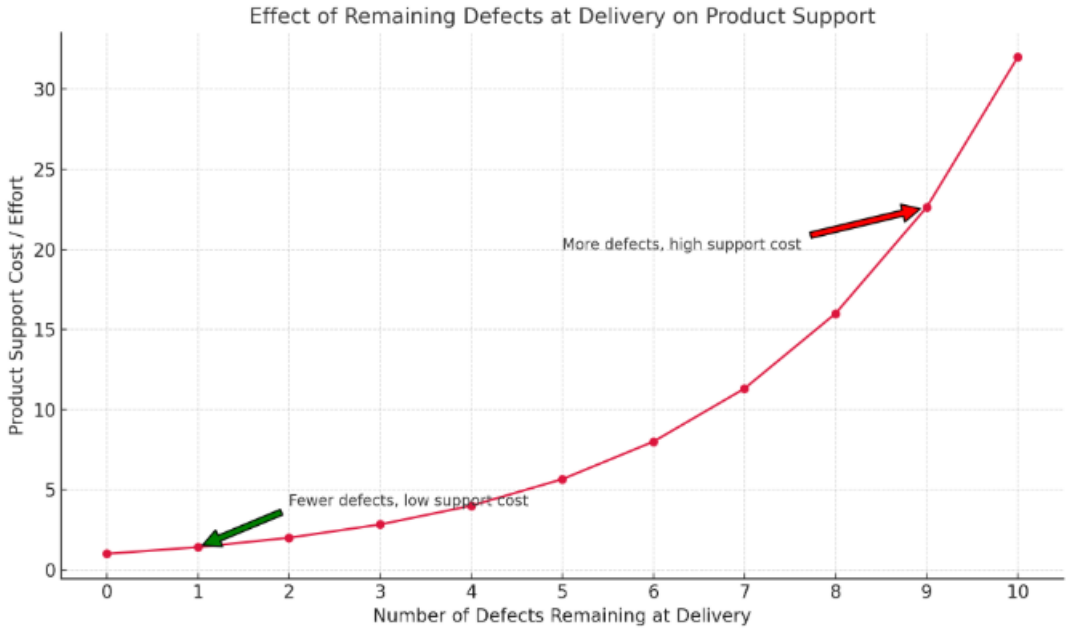
1.

The number of defects remaining in the software at delivery directly impacts product support:

- **More defects lead to more user-reported issues.**
- **Support teams receive more tickets and calls.**
- **Urgent patches and updates are required.**
- **Customer satisfaction decreases.**
- **Support costs (time, people, resources) increase.**

In summary: The more defects remain at delivery, the harder and more expensive product support becomes.



2. Arguments *for* developers testing their own programmes:

Deep Understanding
Developers know the code best and understand its logic and structure thoroughly.

Faster Feedback Loop
They can immediately fix errors they discover without needing to wait for others.

Improves Code Quality
Writing tests encourages cleaner, more maintainable code.

Cost-Effective
Reduces the need for extra testing personnel in small teams or startups.

Early Bug Detection
Bugs are caught early in development, reducing risks later in the process.

Arguments *against* developers testing their own programmes:

1. **Bias and Blind Spots**
   Developers may overlook their own mistakes due to familiarity with the code.
2. **Lack of Objectivity**
   They might unintentionally avoid testing edge cases that could break the system.
3. **Tunnel Vision**
   Focusing on implementation rather than user experience can miss usability issues.
4. **Time Constraints**
   Developers might skip thorough testing due to tight deadlines or pressure.
5. **Separation of Concerns is Lost**
   Testing by a separate QA team ensures independent verification and better quality assurance.

4. What is Regression Testing?

Regression testing is a type of software test that checks if new code changes have broken any existing features. It ensures that the software still works correctly after updates or modifications.

5. Black Box Testing vs. White Box Testing

Black Box Testing:

- **Definition:** Testing the software without knowing how it is built inside.

- **Goal:** To check if the software works correctly by giving inputs and checking the outputs.
- **Example:** Functional testing, system testing.

White Box Testing:

- **Definition:** Testing the software with knowledge of its internal workings.
- **Goal:** To check the internal structure, logic, and flow of the code.
- **Example:** Unit testing, integration testing.

Difference:

- Black Box Testing focuses on what the software does, without looking at the code. White Box Testing looks inside the code to check how it works.

Illustration:

- **Description:**
  - **Black Box:** Input -> System -> Output.
  - **White Box:** Input -> System (with a look at the internal logic) -> Output.