DAY 1 — Relations Basics

1. Relation = subset of A×B

2. Domain = all possible x

3. Range = all possible y

4. Ordered pair: (a, b)

5. Reflexive relation

6. Symmetric relation

7. Transitive relation

8. Identity function: f(x) = x

9. Constant function

10. Modulus function: |x|

DAY 2 — Functions + Domain/Range Rules

11. Function definition: each x → only one y

12. Composite function:

$$(f \circ g)(x) = f(g(x))$$

13. One-one function

14. Onto function

15. Bijection

16. Domain of square root: x ≥ a

17. Domain of rational function: denominator ≠ 0

18. Even function: f(x)=f(-x)

19. Odd function: f(-x)=-f(x)

20. Quadratic range rules (basic)