



Instructions: No answer bank: write or fix the Lua code. Number the steps in order, answer the case study questions, explain the key terms, then write full-sentence answers and plan the extended answer.

1. Code puzzles

Question	Working and answer
local a = 5 a = a * 2 print(a)	
local name = "Tayo" print("Hi " .. name)	
Write a line that makes jumpPower equal 50.	
Fix it: local my score = 0	
coins=8, coins=coins+5, coins=coins-3. Coins?	

Did you know?

- The .. sign joins two strings together in Lua.
- Roblox players have built-in values like Humanoid.WalkSpeed, which is 16 by default.
- A variable with no value in Lua is nil.
- leaderstats is a special folder that shows variables on the Roblox leaderboard.

Background

A variable is like a box with a name label. We can put something inside, look inside and change what is inside. A game remembers your score in a variable called score. The thing inside the box is the variable's value .

2. Steps in order

Number the steps 1 to 5 (1 = first).

1	Start value: Set it at the start
2	Check: Print it to see the value
3	Change: Add, take away or replace
4	Name: Choose a clear name
5	Use: Show it or test it in an if

4. Key terms

Key term	What does it mean? Give an example.
Variable	
Value	
Set	
Change	
String	

3. Case study

Tayo writes local coins = 0 inside the function that runs when a coin is touched. Every time he touches a coin, the score shows 1, never 2 or 3.

Case study: the score that stays at 1

1. Why does it reset to 0 each time?

2. Where should local coins = 0 go?

3. What line adds one coin?

5. Think it through

1. Explain coins = coins + 1 in plain words.

2. Explain the difference between a number and a string.

6. Longer answers (full sentences)

1. Describe how a game keeps score using a variable.

2. Write Lua to store a player's name and print a welcome.

3. Why does camel case exist?

4. Explain in your own words: What makes a good variable name?

7. Extended answer

Extended answer: 'A game without variables would be boring.' How far do you agree?

Plan: introduction · point for (example) · point against (example) · conclusion with your judgement.
