Task

Laila tells Julius to pick a number between one and ten. “Add three to your number and multiply the sum by five,” she tells him. Next she says, “Now take that number and subtract seven from it and tell me the new number.” “Twenty-three,” Julius exclaims.

a. Write an expression that records the operations that Julius used.

b. What was Julius’ original number?

c. In the next round Leila is supposed to pick a number between 1 and 10 and follow the same instructions. She gives her final result as 108. Julius immediately replies: “Hey, you cheated!” What might he mean?