

Problem What is $c^4(101010101)$?

Hint: Use the definition of core, and compute the core of a string by inspection (rather than applying the algorithm described in the class).

Solution

$$\begin{aligned} & c^4(101010101) \\ &= c^3(1010101) \\ &= c^2(10101) \\ &= c(101) \\ &= 1 \end{aligned}$$