

# Exercise 1

①  $a\bar{c} + bc$

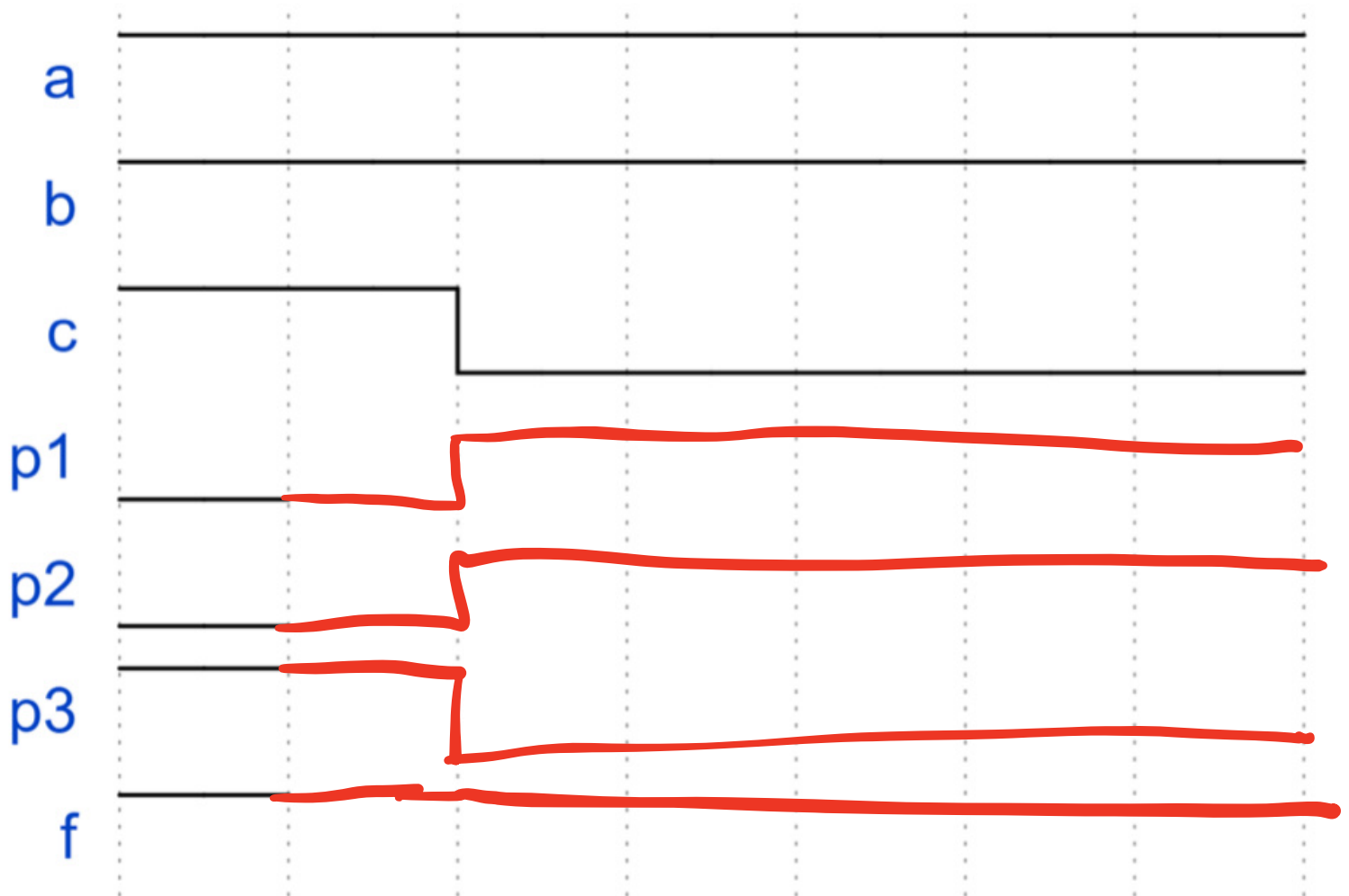


Figure 2: The timing diagram.

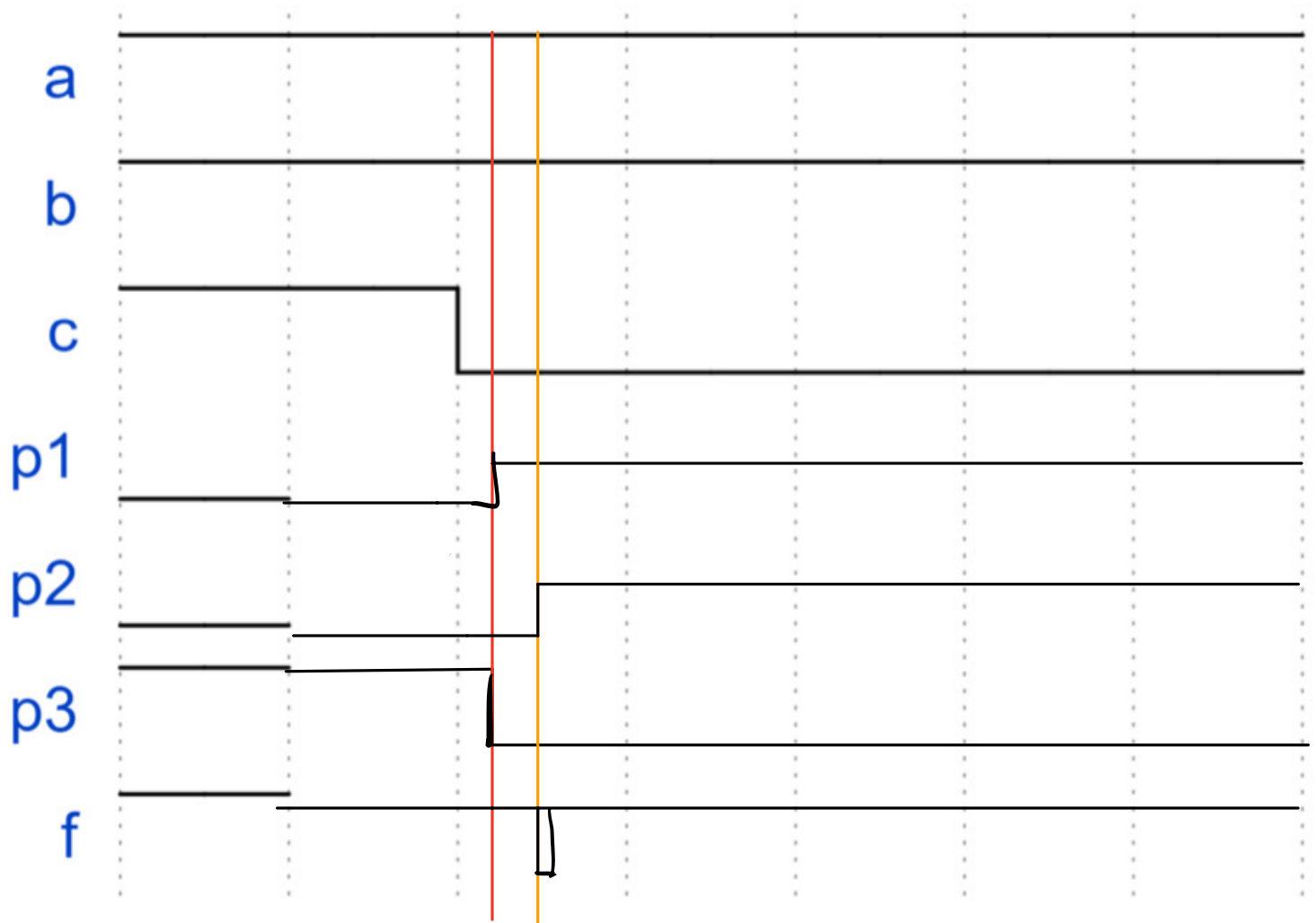


Figure 2: The timing diagram.

No, not always  
correct

⑥

$$a\bar{c} + bc + ab$$

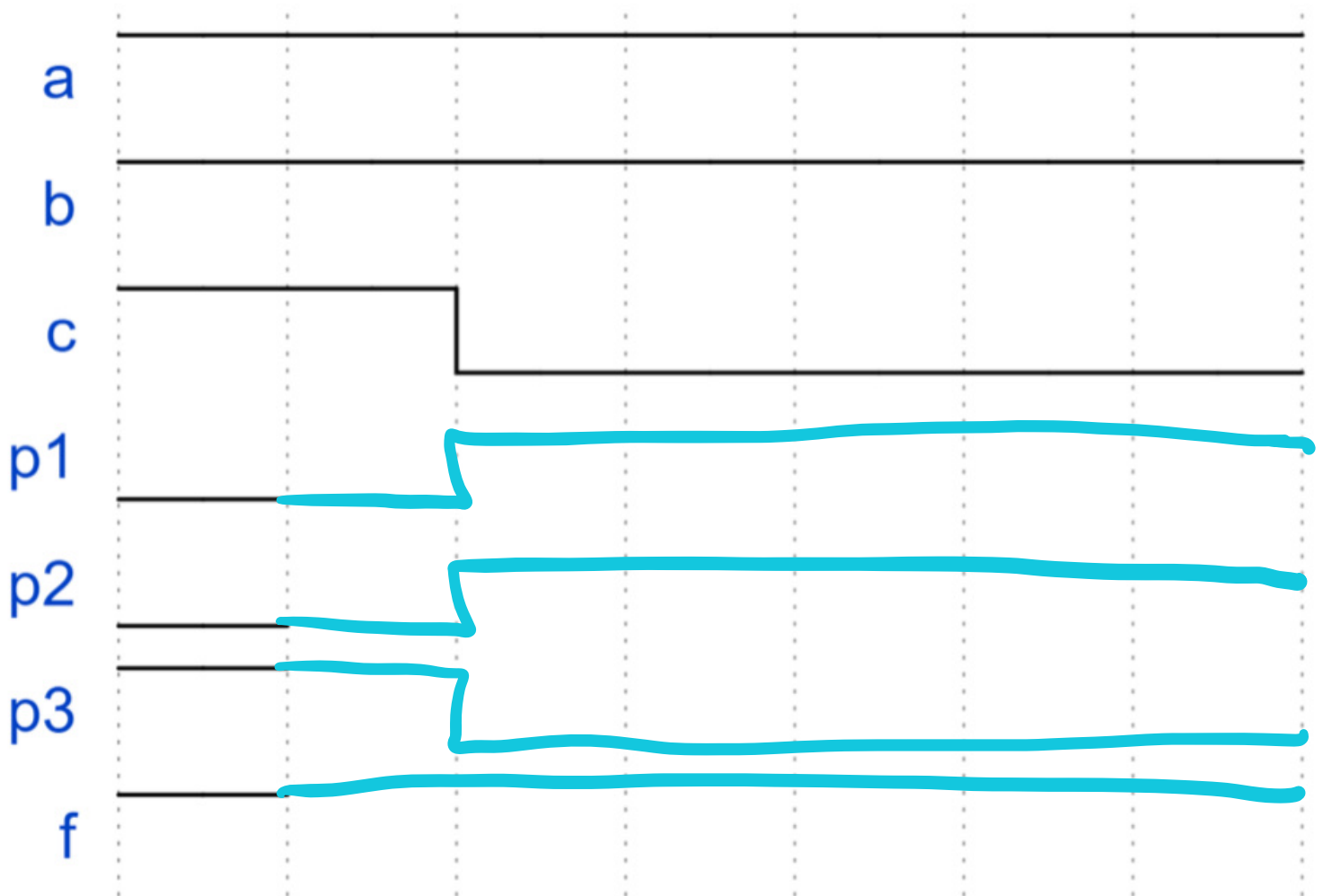


Figure 2: The timing diagram.

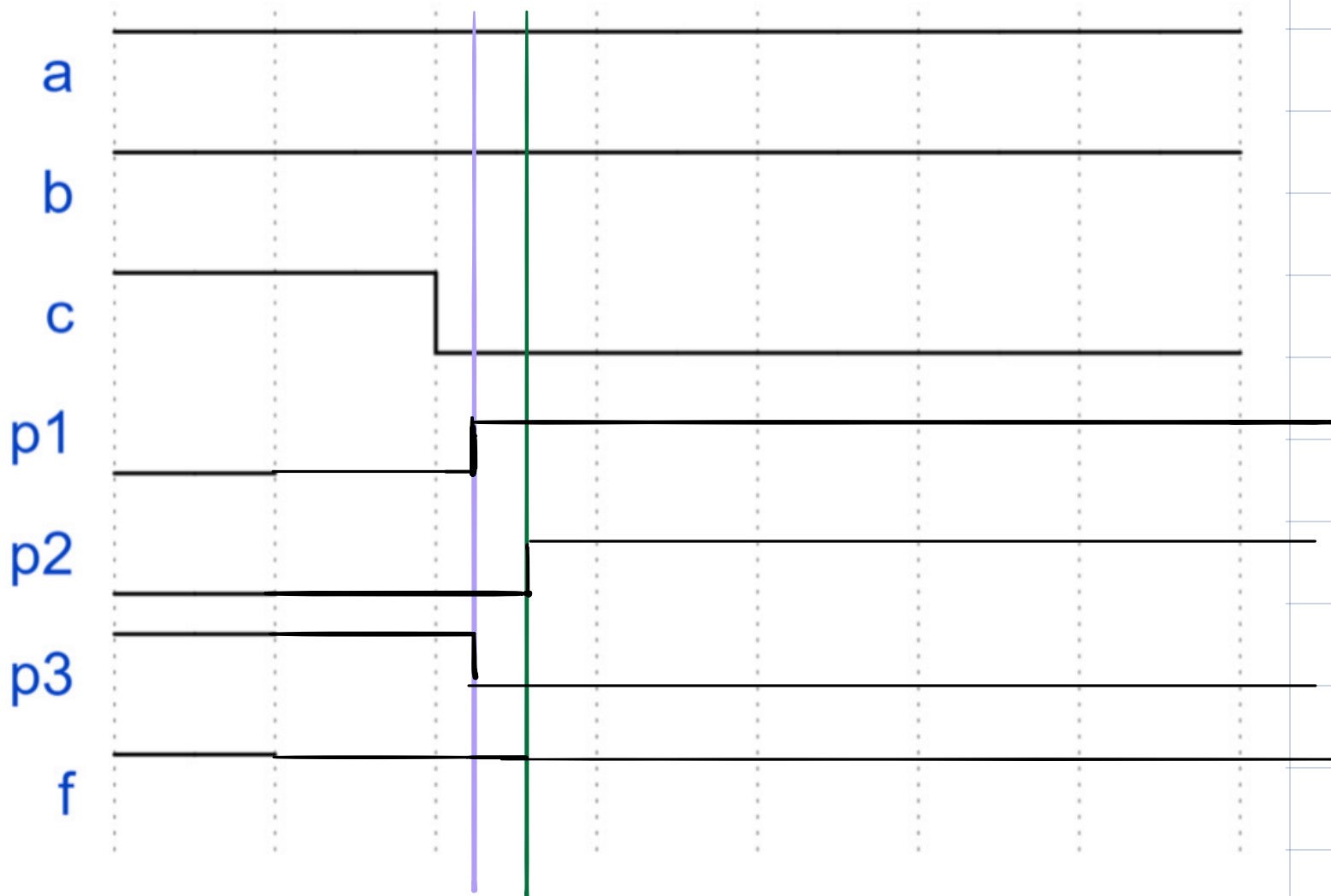


Figure 2: The timing diagram.

yes always correct

## Exercise 3

a)

$$C = 100 \text{ fF}$$

$$f = 320 \text{ MHz}$$

$$V_{DD} = 1.05 \text{ V}$$

$$3.828 \cdot 10^{-8} \text{ W}$$

$$P_1 = 38.28 \text{ } \mu\text{W}$$

b)  $P_2 = 3P_1$

c)  $\nearrow$

d)  $\nearrow$