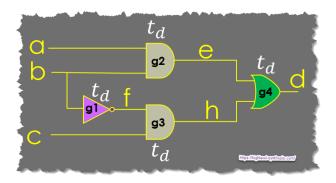
Combinational Circuit Propagation Delay: Quiz Solution

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This file is a resource of the Udemy course: Digital System Design with High-Level Synthesis for FPGA: Combinational Circuits https://www.udemy.com/course/hls-combinational-circuits/?referralCode=80449A49189F4582DDEF

Quiz-1

These are the paths in the circuit and their corresponding propagation delay.



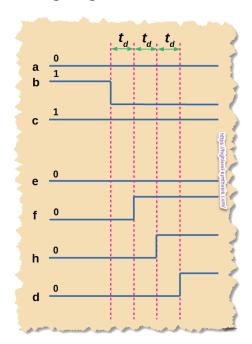
P1:
$$a \rightarrow e \rightarrow d$$
......2 t_d

P2:
$$b \rightarrow e \rightarrow d$$
......2 t_d

P3:
$$b \rightarrow f \rightarrow h \rightarrow d$$
......3 t_d

P4:
$$c \rightarrow h \rightarrow d$$
......2 t_d

Therefore, the circuit propagation delay is $3t_d$ and the following diagram shows the circuit signals timing diagram.



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Quiz-2

As the longeth path passes through 2 gates, then the circuit propagation delay is $2t_d$.

