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## Tutorial : Combinational Timing

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Combinational Timing

1/1 point (ungraded)

Is it possible for an inverter to have a contamination delay that is greater than its propagation delay?

☐ Yes

☒ No

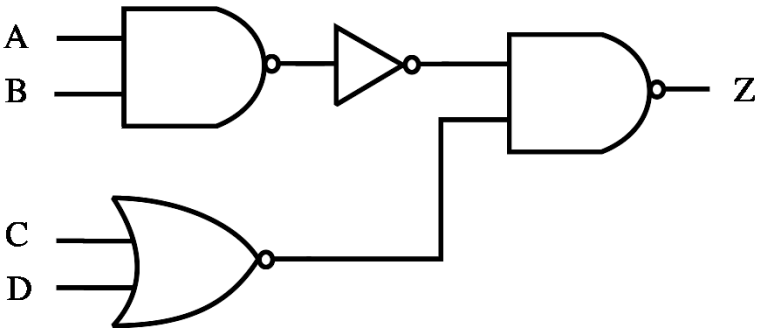
☐ Can't Tell



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Combinational Timing

2/2 points (ungraded)



Here's a table showing the  $t_{CD}$  and  $t_{PD}$  for each of the components in the circuit above. Please compute  $t_{CD}$  and  $t_{PD}$  for the circuit as a whole.

	$t_{CD}$	$t_{PD}$
Inverter	2 ns	4 ns
NAND	3 ns	8 ns
NOR	4 ns	7 ns

Contamination delay (ns):  ✓

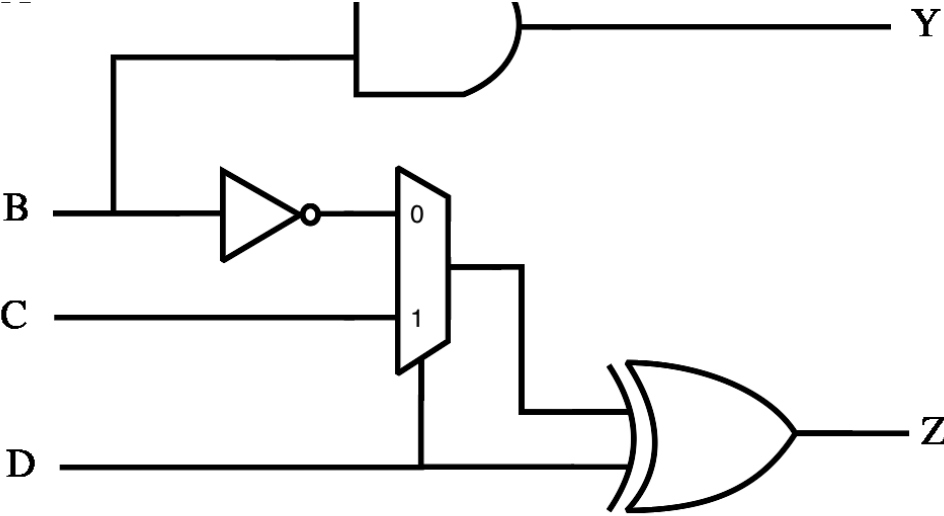
Propagation delay (ns):  ✓

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Combinational Timing

2/2 points (ungraded)





Here's a table showing the  $t_{CD}$  and  $t_{PD}$  for each of the components in the circuit above. Please compute  $t_{CD}$  and  $t_{PD}$  for the circuit as a whole.

	$t_{CD}$	$t_{PD}$
Inverter	0.1 ns	0.3 ns
AND2	0.2 ns	0.5 ns
XOR2	0.6 ns	2.4 ns
MUX2	0.3 ns	1.5 ns

$t_{CD}$  (ns):

0.2

✓

$t_{PD}$  (ns):

4.199999999999999

✓

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🗨

[STAFF] there is no E in 2nd graph!  
Also too many paragraphs in the answer to 2nd circuit. It is a simple concept 2 paragraphs should be enough

2

🗨

Combinational Timing Part 1

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