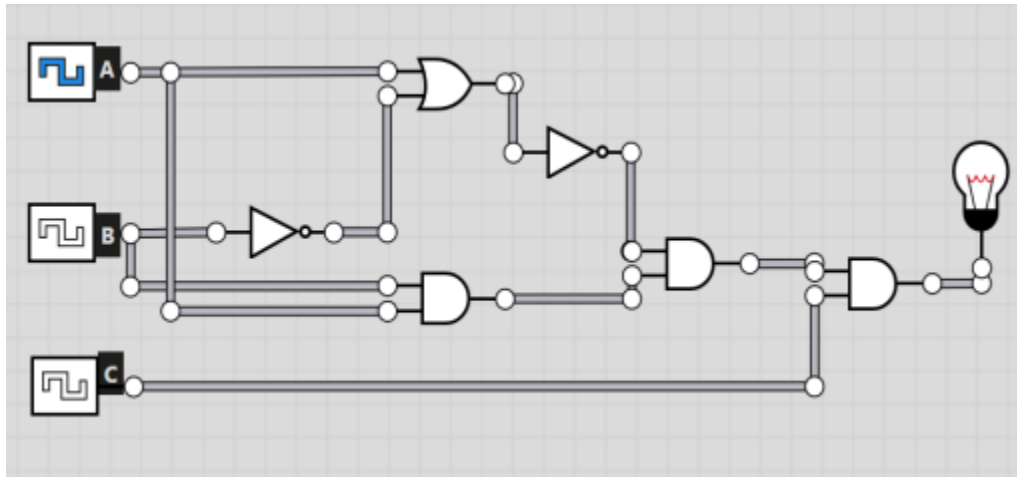


Discrete Mathematics

Task 2,

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Logic circuit: $(\sim(A \text{ or } \sim B) \text{ and } (A \text{ and } B)) \text{ and } C$

$(\sim(A \text{ or } \sim B) \text{ and } (A \text{ and } B)) \text{ and } C$
 $(\sim A \text{ and } B \text{ and } A \text{ and } B) \text{ and } C$
 $(0 \text{ and } B) \text{ and } C$
 $= 0$
contradiction

The result is always 0.

Code output

Main Circuit:

A B C

0 0 0

0 0 1

0 1 0

0 1 1

1 0 0

1 0 1

1 1 0

1 1 1

evaluating $\sim B$

1

1

0

0

1

1

0

0

evaluating $(A \vee \sim B)$

1

1

0

0

1

1

1

1

evaluating $\sim(A \vee \sim B)$

0

0

1

1

0

0

0

0

evaluating $(A \wedge B)$

0

0

0

0

0

0

1

1

evaluating $\sim(A \vee \sim B) \wedge (A \wedge B)$

0

0

0

0

0

0

0

0

evaluating $((\sim(A \vee \sim B) \wedge (A \wedge B)) \wedge C)$

0

0

0

0

0

0

0

0

The circuit is always false