

Assignment1

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1 Introduction

To draw a logic circuit using only NAND gates and results in the expression $XY+YZ$.

In order to do this we will first do X (NAND) Y which results in $\overline{X.Y}$ and similarly we do Y (NAND) Z which results in $\overline{Y.Z}$. If we take the outputs of these two NAND gates and give as input to the other NAND gate we will get the required output as $\overline{\overline{X.Y}.\overline{Y.Z}}$.

So, as per De Morgan's Law this becomes $XY+YZ$

2 Circuit Diagram

