

SIMPLE LOGIC GATES

Write a definition and complete the truth table for each logic gate. Draw the corresponding logic gate to the right of the table.

NOT: _____

A	Q

AND: _____

A	B	Q

OR: _____

A	B	Q

NAND: _____

A	B	Q

NOR: _____

A	B	Q

XOR: _____

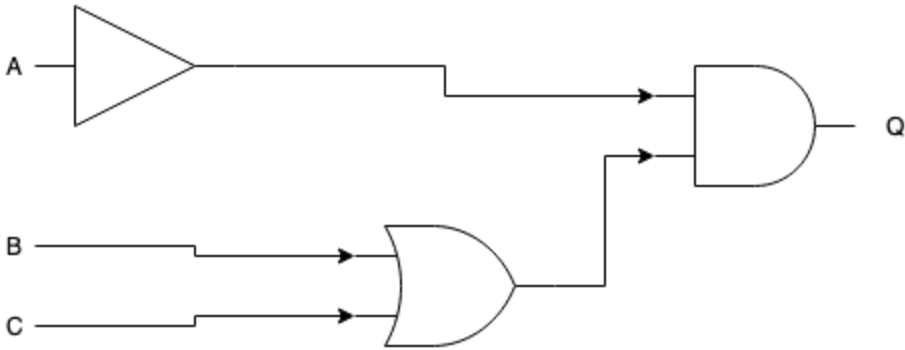
A	B	Q

Draw a logic diagram for each of the logic statements below.

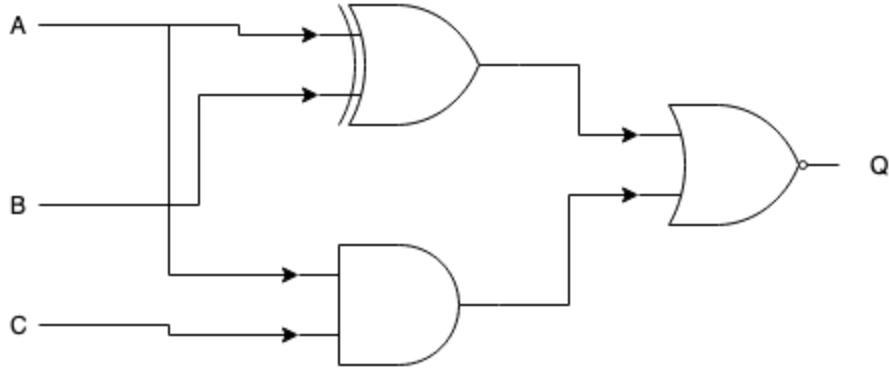
$X = 1$ if $((A \text{ is } 1 \text{ AND } B \text{ is } 1) \text{ OR } (B \text{ is } 1 \text{ AND } C \text{ is NOT } 1))$

$X = 1$ if $((A \text{ is } 1 \text{ OR } B \text{ is NOT } 1) \text{ AND } C \text{ is } 1) \text{ OR } (B \text{ is } 1 \text{ AND } C \text{ is NOT } 1)$

Write a logic statement for each of the logic diagrams below.



X = 1 if (



X = 1 if (