(A OR B) AND (NOT C)

There are only 10 types of people in the world: Those who understand binary and those who don't

PiXL Computing

ThinKIT
COMPUTATIONAL LOGIC
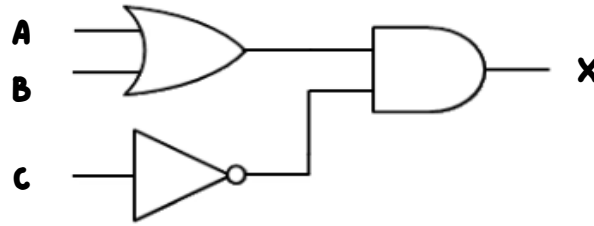
$$p \Rightarrow q$$

read "p implies q"

p	q	p ⇒ q
T	T	T
T	F	F
F	T	T
F	F	T

BIDMAS

$$() \quad x^y \quad \div \quad x \quad + \quad -$$

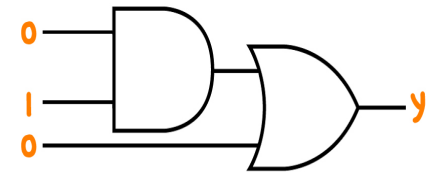*Computer Arithmetic*

The Science of Algorithms

Logic Gates & Diagrams

- Create the logic gate symbols for AND, OR, NOT

- Identify the following Boolean operations:

$$A \wedge B \qquad A \vee B \qquad \neg A$$

- What is the value at Y? Why is this?

- What is the alternative name for a NOT gate?

- How many input rows would you require for an AND gate?

- What would the output be for two NOT gates in series if the first input = 0

Why Binary?

- What is the link between transistors and binary?

- How many states can a binary system have?

- How many combinations could a 4 bit system have?

- What is the connection between False and 0?
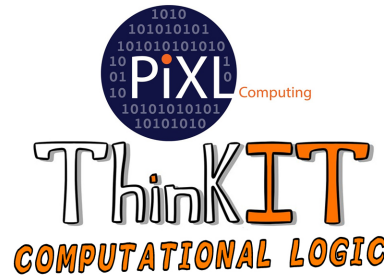
Truth Tables

- Draw the truth tables for AND, OR, NOT gates

- Draw the truth table for this series of logic gates
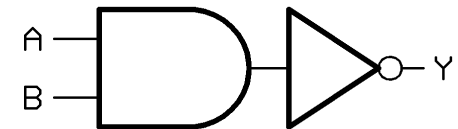
Computer Arithmetic

What is the answer to the following:

- width = 10, length = 5 **area** = width ***** length

- gross = 100, VAT = 20, **net** = gross + VAT

- allHeight = 40, groupSize = 20, **aveHeight** = allHeight / groupSize

- salePrice = 128, commision = 10%, moneyRec = salePrice - commission

- totalIncome = 75, days = 7, totalIncome **MOD** days

- ISBNnum = 132, digits = 10, ISBNnum **DIV** digits

- **2^5** =

- What is the difference between MOD and DIV?

- What is the answer to 5 + 6 / 2