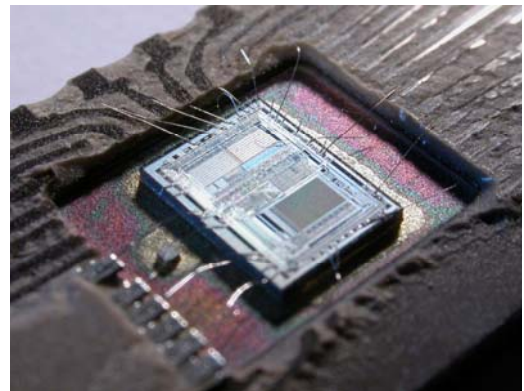


Fondements

information

machines



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1.1 La logique, un formalisme de la pensée

valides complètes

1.1.1 Notions de logique aristotélicienne

Organon

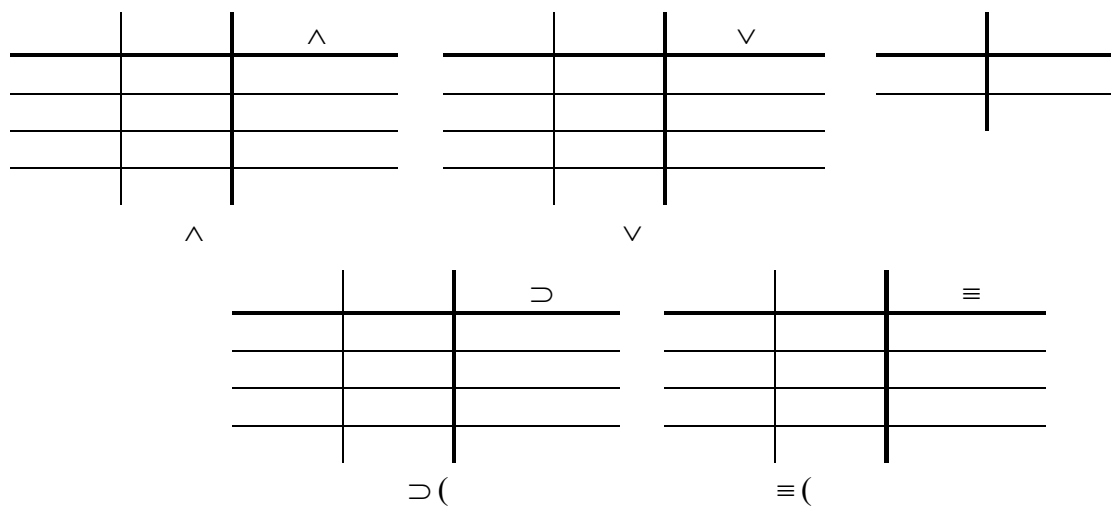
mortels

*Je suis un homme
Je suis mortel*

*Tous les hommes sont
homme*

1.1.3 Raisonnement, déduction et inférence

$\wedge \vee \supset \equiv$



n'équivaut pas à :

Tu fais tes devoirs Tu iras au cinéma

$\supset \equiv \supset$

1.1.4 L'avènement de l'algèbre de Boole

Mathematical Analysis of Logic 2) *An Investigation
Into the Laws of Thought, on Which are Founded the Mathematical Theories of Logic and Probabilities*

1.2 La logique mathématique



logique mathématique

1.2.1 Théorie des ensembles

.

i

$i+$

i

i

$f x \quad x$

1.2.2 Paradoxe de Russell

1.2.3 Programme de Hilbert

Ignorabimus

Königsberg



indécidables

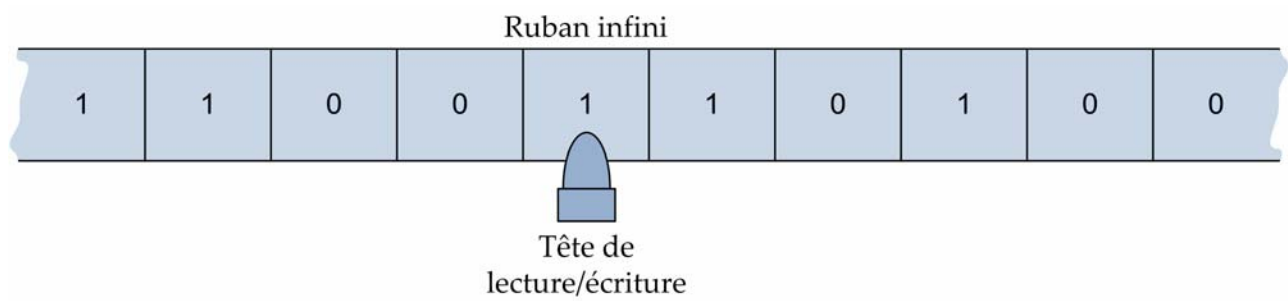
incomplétude

1.3 La naissance de l'âge numérique

1.3.1 La machine de Turing

nombre de Gödel

calculabilité



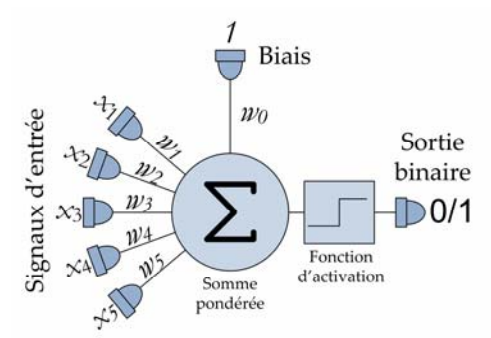
contrôler

1.3.2 La cybernétique

ce qui dirige

mécanismes

1.3.3 Le neurone artificiel



i

w

apprendre

perceptron

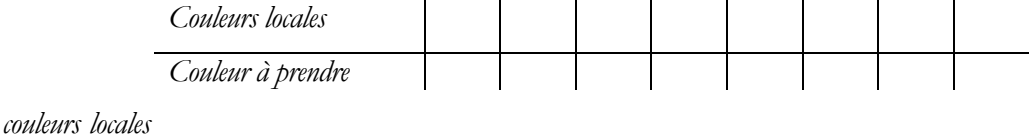
1.3.4 La machine de von Neumann

Institute of Advanced studies



Conus Textile

How to Solve It





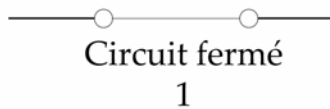
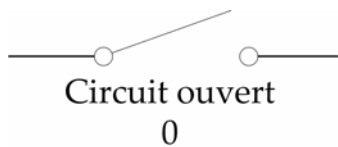
Computer

Electronique Discrete Variable Automatic

1.4 La technologie au service de la science

Massachusetts Institute of Technology

1.4.1 Circuits à relais

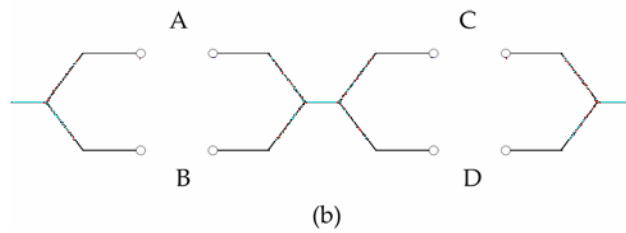
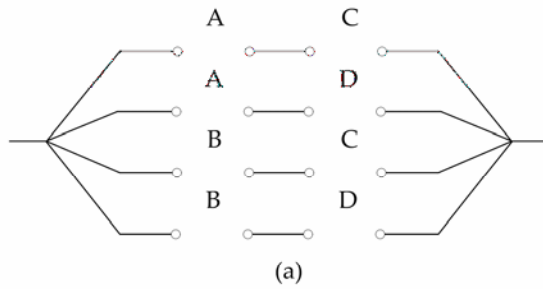
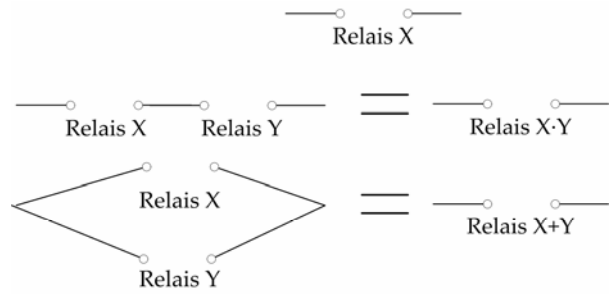


First Draft of a Report on the EDVAC

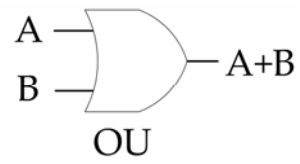
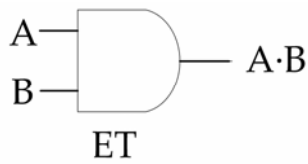
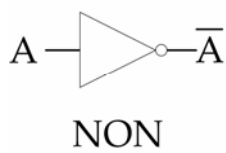
*Advanced Studies
A Symbolic Analysis of Relay and Switching Circuits*

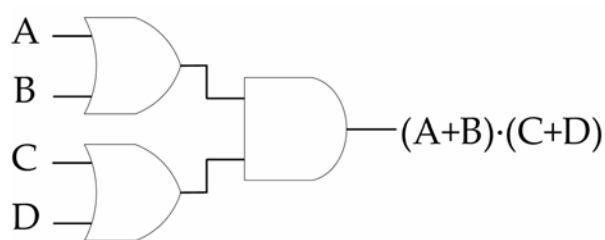
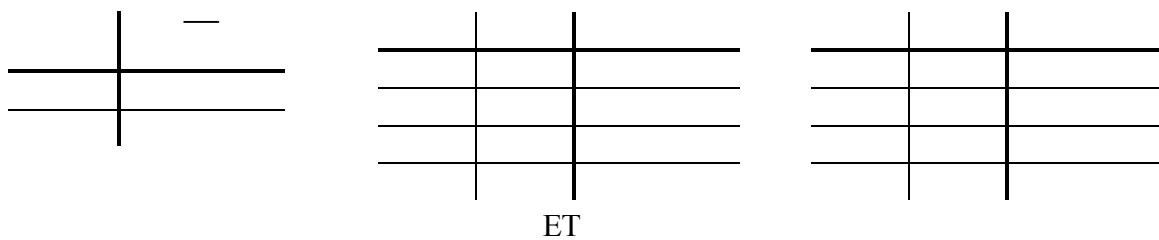
Institut of

Master of Science

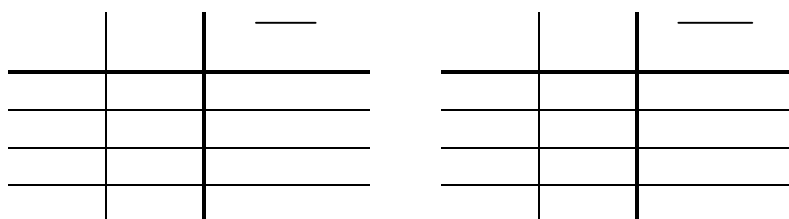
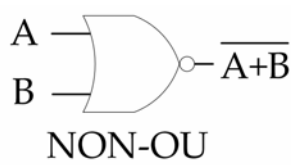
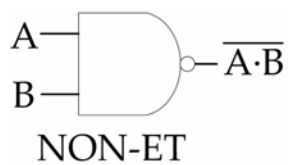


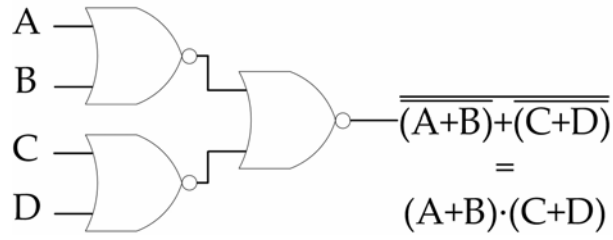
1.4.2 Portes logiques





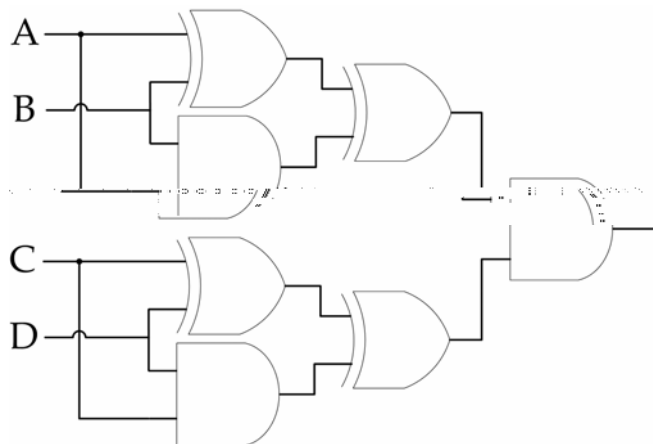
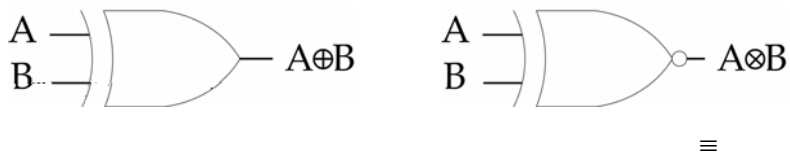
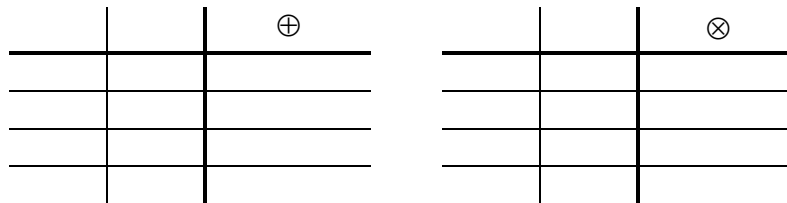
inversant





$\overline{\text{donut}} \quad \overline{\text{muffin}}$

$\overline{\text{donut}} \quad \overline{\text{muffin}}$



1.4.3 Représentation binaire des entiers

a a a a a

a a a a a

		0	0	0	0
		0	0	0	1
		0	0	1	0
		0	0	1	1
		0	1	0	0
		0	1	0	1
		0	1	1	0
		0	1	1	1
		1	0	0	0
		1	0	0	1
		1	0	1	0
		1	1	1	1
		1	1	0	0
		1	1	0	1
		1	1	1	0
		1	1	1	1

6 1 5 3 2

6 1 5 3 2

b

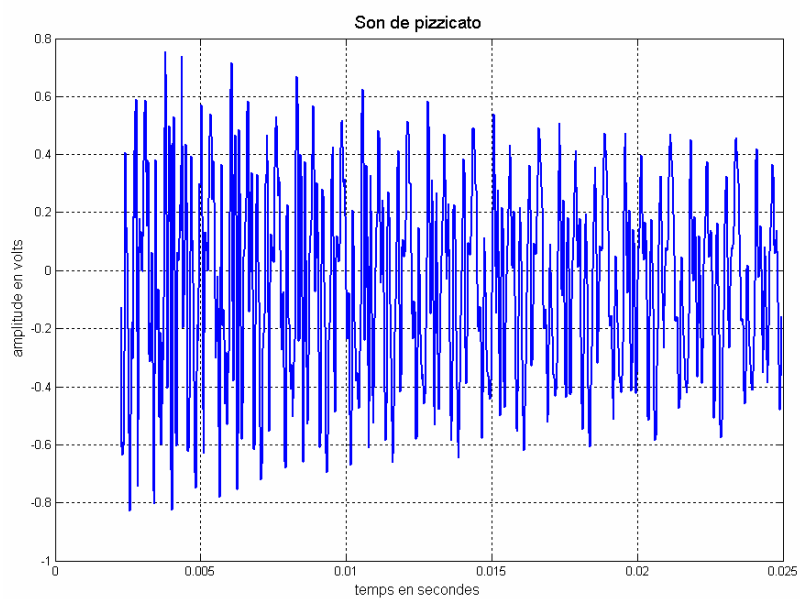
b a b a b a b a b a b

b b

1.4.4 Discrétisation

discrétisation

fréquence d'échantillonnage



1 - FONDEMENTS

